Consumers' Research Bulletin



February 1951

Electric Ironers				5
Carving Knives				10
Deep-Fat Fryers				21
Children's Shoes				23
FOR THE HOME				
Combination Iron Stand and Cord Hanger				15
Tips on Cleaning Rugs and Carpets .				26
PHOTOGRAPHIC EQUIPMENT				
Photographic Developers				13
Photo-Pac Camera, Miniature Cameras, Ro Film and Plate and Film-Pack Cameras, Film Holder for Graphic	Rol	II-		11
FOR THE AUTOMOBILE	1			
"Battery Improvers"			*	1
Propylene Glycol Anti-Freeze				2
MISCELLANEOUS				
Note to Teachers and Students				9
B ₁₂ — A New Vitamin Promotion				15
Winding One's Watch		i.		1
Nutrilite — A Vitamin Preparation	*	-		16
FEATURES				
Off the Editor's Chest				5
The Consumers' Observation Post .	*			1
Brief 1951 Cumulative Index			*	2
Ratings of Motion Pictures	*			2
Phonograph Records - Walter F. Grueninge				3



Vol. 27 . No. 2

BULLETIN

February 1951

Off the Editor's Chest

THE RECENT STORM of page 12 that broke over the heads of the advertisement THE RECENT STORM of public disapproval profession on the appearance of an advertisement designed to give parents a strong feeling of family inferiority if they failed to purchase a television set reminded us of an unhappy experience or two of our own with the advertising gentry.

For several years at frequent intervals, we have received mail addressed to Barbara Taylor, Consumer Research Institute, New York City. New York City is a big city, and with no street address such letters required directory service. Since Consumers' Research has a Manhattan telephone book listing and a New York City directory listing, a number of letters were quite naturally forwarded to us. The particular batch of letters received during the Christmas holidays one year embarrassed us no end because they were "thank you" notes to Miss or Mrs. Taylor for gifts of plastic refrigerator dishes and a plastic spray. Since we hadn't been the donor of these little tokens of esteem, we felt obliged to put an item in CR BULLE-TIN asking Barbara Taylor to identify herself. Apparently Barbara was not a subscriber to CR's BULLETIN, but a business association kindly made the suggestion that there was a record in their files of a Consumer Research Institute that was a

division of William Esty & Co., an advertising agency. Hopefully we wrote to the agency advising them of the accumulation of mail that we would be glad to forward to Barbara Taylor if she could be reached at their address. To date, over a year later, we have had no reply, although we have received from time to time filled-out questionnaires on such topics as soap, detergents, and insecticides addressed to Consumer Research Institute, New York, N.Y. (Not for Consumers' Research, we repeat.)

About the same time that we were struggling with Barbara Taylor's mail, we came across a series of pamphlets entitled "The Consumer-Buyer and Distribution" put out by "Committee on Consumer Relations in Advertising, Inc.," 420 Lexington Ave., New York 17. Leafing through "Part V. Lesson 9" we discovered a brief description of Consumers' Research which in its two short paragraphs contained three important errors of fact.

It did not surprise us, of course, to find such errors in a publication sponsored by the advertising business, but we hastened to write the group, setting them right on the three points. It was obvious that the writer had not bothered to read CR's material or to get in touch with Consumers' Research

(Continued on page 26)

Consumers' Research functions to provide unbiased information on goods bought by ultimate consumers. For their benefit (not for business or industry) and solely with the funds they provide, CR carries on tests and research on a wide variety of goods, materials, and appliances, and publishes the findings in CR Bulletin. Consumers' Research is a non-profit institution, and is organized and operates as a scientific, technical, and educational organization. Scientific and Technical Staff and Editors: F. J. Schlink, R. Joyce, Dwight C. Aten, M. C. Phillips, Erma A. Hinek, and A. R. Greenleaf. Editorial Assistants: Mary F. Roberts and B. Beam. Business Manager: C. D. Cornish.

Symbole used to indicate sources of data and bases of ratings: A—recommended on basis of quality; A—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—sort recommended on basis of quality; c—information from Consumers' Research is own tests or investigations; 1, 2, 3—relative prices, I being low, 3 high. Note that price and quality are completely differentiated in CR's listings; a quality judgment is independent of price; 30, 51—year in which test was made or information obtained or grainsed by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least 5 weeks before it is to take effect, accompanying your notice with statement of your old address with name in full. At least a month's notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel. (*CR will, of course, faight others address with name in full. At least an nonth's notice must be given in assum and other circumstances.

**CR will, of course, faight others address, and the course of the course, faight of the organization of the course, faight of the organization. Entered as second-class matter November 9, 1934, at the Post Office at Washington, N.J., under the Act of March 3, 1879; additional entry at Ear-on, Pa. Copyright, 1931, by Consumer's Research, Inc., Washington, N.J., Under the Act of March 3, 1879; additional entry at Ear-on, Pa. Copyright, 1931, by Consumer's Research, Inc., Washington, N.J., Under the Act of March 3, 1879; additional entry at Ear-on, Pa. Copyright, 1931, by Consumer's Research lies wholly with the technical director and staff of the organization.

Entered as second-c



The Consumers' Observation Post

REPAIRMEN who specialize in keeping home appliances in operation were already experiencing an increase in business even before production was cut back. In normal times, when any major repairs are involved on large items such as refrigerators, mechanical washing machines, and electric stoves, the consumer's inclination has been to turn an old model in on a new one. As current supplies become depleted, however, and as heavier taxes make deep inroads on the family budget, it is not possible to follow

inroads on the family budget, it is not possible to follow this procedure. The life of major appliances has been placed at not less than 10 years. Those who wish to make their present equipment do will be well advised to canvas their locality to locate a competent serviceman and a source of replacement parts. As many learned to their sorrow and inconvenience during the last war, it is often difficult to obtain skilled service quickly to handle an appliance breakdown.

WELL DONE OR MEDIUM STEAK AND ROAST BEEF was the preference of nine in 10 of the 96,000 people queried in a nation-wide poll by the National Live Stock and Meat Board. Only seven percent voted for beef rare, a figure that will certainly make epicures, who believe that beef is as its best in an "underdone" state, feel that considerable education needs to be done to improve the public's taste. The survey found that 40 percent of those queried had meat at breakfast and that hamburger and ham were tied for first place as the favorite sandwich filling. It has also come to be recognized that consumers regard beef as a preferred food, to be bought whenever income permits.

HOW WARM IS WARM and how can you tell whether some of the new synthetic fabrics keep you as comfortable in cold weather as good woolens? The \$64 question in this field is what are the objective methods for measuring with certainty whether spun nylon socks, for example, will keep out the winter chill and give the feet as warm a feeling as woolen Argyles? Will a mixture of wool and nylon afford the same protection as all-wool flannel? The need for agreement on proper scientific methods for measuring the warmth afforded the human body by the new fibers and fabrics has been highlighted by comments from The Wool Bureau that certain "pseudotechnical comparisons" of the relative warmth of various synthetic fabrics give only the dry heat transfer characteristics of the fibers, whereas the degree of skin-to-fabric contact, the moisture absorbency and retention, and the heat of absorption must also be taken into account. Quite naturally, The Wool Bureau holds that wool is superior to synthetics in these properties.

MORE WOMEN THAN MEN visit the dentist for tooth repair, according to a survey made by the American Dental Association on a cross section of the nation's dentists. It was found that 14 women consulted their dentist for every 10 men. Whether this figure indicates that women's teeth are in greater need of attention or merely that they have more time to attend to the problem, the survey did not reveal. Among children, the gap narrowed sharply, with 11 girls (under the age of 15) visiting the dentist for every 10 boys in the same age group. Need for the dentist's services can often be cut considerably by the elimination of a single high-sugar "habit" item from the diet, according to a study by Dr. Herman Becks, professor of dental medicine at the University of California College of Dentistry, based on observation of 1542 individuals over a period of 10 years. Merely eliminating one item such as chewing gum, ice cream, jam, or candy was found to produce a significant reduction in dental caries.

COOKING FATS AND OILS that have been overheated have long been considered undesirable, and now Dr. A. C. Ivy, distinguished physiologist of the University of Illinois, has come up with an important reason for avoiding their use. His researches have disclosed the fact that fat used and re-used in frying where it is heated to the smoking point was found to contain a cancer-causing agent, in experiments with mice. Dr. Ivy particularly cautioned against using fat that had taken on a dark brown color from high temperatures. It should be discarded immediately.

HOUSEHOLD PAINTS sold in the state of Virginia are now covered by a new law that became effective July 1, 1950. Its regulations govern the manufacture, sale, transportation, distribution, and use of paint, paint oils, and turpentine. State enforcement officers believe that the new law will eliminate most adulterated and misbranded items from the market. One group is afforded no protection by the new regulation; the out-of-state mail-order buyer must make such purchases at his own risk.

UP, AND UP AND UP, seems to be the trend of prices. Cotton is scarce because our Federal officials in charge of planning for that commodity made drastic restrictions in plantings last year. Demand is large and the world crop is considerably below estimated needs. All of which adds up to more expensive sheets, shirts, and dresses. Carpet wool priced at 50-60 cents in 1949 was over \$1.50 late last year and still rising. Carpet makers who paid 10 cents a pound for cotton before World War II were paying around 45 cents a pound in late 1950, and the price of rayon was also on the increase. The price of hides which go into shoe leather had increased 50 percent in the last six months of 1950, and in turn the rise is bringing substantial increases in the price of shoes. Whether products will sell freely at fantastically high prices is another matter. Consumers have been known to bring prices down in the face of seemingly insuperable odds by restricting their purchases to bare necessities.

FUR COATS can be expected to have a life of two to ten years, report Edward T. Steiner and Elizabeth R. Hosterman in a study published by the National Bureau of Standards. Poor wearing quality is due in some cases to faulty procedures in dressing the skins and carelessness of consumers in caring for furs. Improper drying after exposure to the elements, faulty dry-cleaning methods, and storage under adverse conditions all were found to shorten the useful life of furs. In the case of karakul and seal furs studied, it was found that there was an appreciable loss of strength in storage, amounting to 25-40 percent in some cases. The investigators came to the conclusion that the presence of small amounts of copper salts used during dyeing had a significant effect in promoting deterioration. It may be wise for purchasers of fur coats to make their selections so far as practicable from undyed pelts.

AUTOMOBILE GASOLINE has carried a reduced octane rating since the early fall of 1950. The deterioration in quality was carried out at the request of the Department of the Interior, according to the magazine Motor, without any notice to servicemen or motorists.

THE POSSIBILITY OF FOOD ALLERGY should always be carefully considered in connection with patients having gastrointestinal disturbances, suggests Dr. F. W. Bramigk, Detroit. In the case of allergenic foods, Dr. Bramigk advises the elimination of wheat and cottonseed products for three months and for milk and other allergenic foods about two months. It has been his observation that it is sometimes not one but a particular combination of allergenic foods that causes trouble. Emotional upsets and fatigue may be a factor in lowering the patient's critical threshold. The vacationing patient, rested and relaxed, may decide that he is over his difficulties and can eat forbidden foods, only to find his symptoms returning when he gets back to work.

WATCH FOR A NEW MAN-MADE FIBER to make its appearance this winter in blankets, men's half socks, tricot and jersey knit fabrics, sport coat fabrics, (The continuation of this section is on page 29)

ELECTRIC IRONERS

HE HOMEMAKER who shops for an electric ironer will find two different types to select - the flat-press type and the rotary type but she will find that there are many more makes of rotary ironers than of the flat-press ironers. As CR's subscribers have expressed very little interest in flat-press ironers, none were included in the present study. In a 1937 CR study, which included four rotary ironers and two flat-press ironers, it was found that the rotary type was somewhat faster than the flat-press type and saved both work and fatigue. The flat-press ironers have been considered somewhat superior for pressing; however, the rotary ironers included in the present study were all equipped with easily operated mechanisms which permitted them to be used for stationary

Basically, an ironing machine operates on the same principle as a hand iron, that is, the shoe of the ironer corresponding to the soleplate of the iron is applied with pressure to the clothes. In the current study, two ironers, the *Ironrite* and the *Supreme*, were designed so that the roll moved against the shoe; all the other ironers were designed so that the shoe moved against the roll. The rolls on most ironers were about 26 inches in length, although one was as small as 24 inches and two as long as 29 inches. The longer the roll the less the user needs to turn and adjust materials, and, of course, on the very longest rolls some articles such as hand towels can be ironed across the width instead of lengthwise, which saves time.

On most of the ironers tested, the left end of the roll was open and the right fastened to the gear case. This right-hand end can be used for certain kinds of ironing, but is not so convenient to use as an open end. Both ends are open on the *Ironrite* ironer, a great convenience. The *Ironrite* has one slight disadvantage in that the ironing is done up-

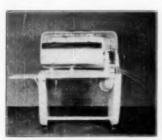
side down — that is, the user looks at the side of the material that is not being ironed. With a little experience, however, the homemaker might expect to become accustomed to this and find no inconvenience at all in using the appliance.

The shoe of an ironer is heated by one or two separate electrical elements. Temperatures are controlled by thermostats, and two thermostat controls are considered more desirable than one because the operator can reduce the heat on the unused end and so prevent wasting electricity and scorching the padding. On three of the ironers tested, the Easy, the Kenmore, and the Supreme, there was a projecting strip or bar at the front of the shoe to protect the fingers of the operator.

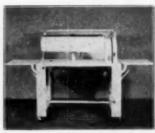
The action of the shoe and the roll may be controlled by hand, knee, or foot control. Many ironers offer two methods to give more flexibility. Foot or knee controls, of course, leave the hands free to guide and feed the clothes. Knee controls should have provisions for adjusting their position to meet the needs of the operator. Only one of the ironers tested, the *Frigidaire*, had a foot control. In CR's use tests, this was found very convenient to operate.

Some ironers have two speeds, one fast and one slow. This was found more helpful because the user was able to adjust the speed to the needs of the fabrics being ironed.

All of the ironing machines tested withstood the standard 900-volt proof-voltage test, both "as received" and at operating temperature. The ironers tested were found to be very much better with respect to amount of leakage current under humidified conditions than those considered in the last study made by CR in 1948. None of the ironers in the current test had a leakage current sufficiently high to present an excessive shock hazard, and four of the ten ironers tested had a leakage less than 0.6 milliampere — CR's limiting figure for an A-



Kenmore No. 110.503630



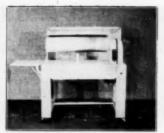
Universal Model WM4515



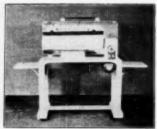
Easy Model 150







Simplex Model S507



Supreme, Ward's No. 85 - 179A

Recommended rating on an appliance. The other six ironers, although having greater leakage, had less than 5.0 milliamperes when exposed to high humidity for 24 hours.

Maximum power input at 115 volts was measured and is given in the listings; rated wattage figures are given in parentheses following, when known. The householder should remember that the wiring to the average base plug in the home should be expected to carry not more than 1300 watts (1650 maximum, corresponding to a 15-ampere fuse). Since these ironers all are near the maximum in current demand, care should be taken not to plug in another item of electrical equipment on the line at the same time as the ironer unless a special line with larger sized wire and larger capacity fuse has been provided for the appliance. The maximum temperatures of parts likely to be touched by the operator were determined by means of thermocouples placed at those various locations. These readings were taken at frequent time intervals and at various settings of the thermostat while the thermostat operated through several on and off cycles. On all of the ironers tested except one, the Ironrile, the temperature of the thermostat control knobs exceeded the accepted limit (150°F). Consumers would certainly appreciate manufacturers' taking steps to improve the ironers in this respect. The ironers were checked for radio interference, and none were found to be objectionably noisy.

Two series of ironing tests were made. In the first test, a laboratory technician ironed 36-inch squares of nylon, rayon, spun rayon, silk, wool, cotton broadcloth, cotton flannel, and linen fabrics on each ironer, with the thermostat set at the value recommended by the manufacturer for each kind of material, when given. The test cloths were weighed at room temperature and humidity and then dampened by adding 10 percent water by weight, except for linen cloths, to which 25 percent was added. These tests simulated home ironing, in that many different kinds of fabrics were ironed systematically at appropriate temperature settings as recommended by the ironer manufacturers. Ironing conditions, however, were stand-

ardized, so far as possible, thereby giving more closely comparable results than could be obtained in any consumer's use of the appliance. The results of this test are given in the listings.

In the second series of ironing tests, clothing representing an ordinary weekly home washing was ironed on each ironer. These tests brought out some interesting comments concerning the convenience features. The Easy ironer, for example, had locks on the casters on the front legs which were found very useful since they kept the ironer from rolling. On the same ironer, however, it was unnecessarily difficult to change the position of the shoe release lever before closing, and the cover hit a plastic roller on the shoe guard. A pilot light was found to be a desirable feature, particularly if placed on the front of the cabinet as on the General Electric and Simplex, where it serves as a warning signal even if the top is down. The Universal had a switch which shut off both the heat and the motor when the cover was closed. Lapboards, which kept the damp clothes from lying in the lap of the user, were also favored. (Of the ironers tested, only the Supreme lacked one.) In the practical ironing test, two speeds were found desirable, but the very slow

speeds on the Frigidaire and the Maytag were considered to be just a little too slow to satisfy the operator. The Kenmore had a useful light in the cover and three bars on which to hang ironed pieces. In this second series of ironing tests, ironing results were satisfactory with all ironers, except the Hotpoint.



Hotpoint Model 10LR4

Prices given are retail prices prevailing at the time the article was written. Price ratings take into consideration the features and accessories provided with ironers.

A. Recommended

Kenmore (Sears-Roebuck's Cat. No. 26—3630 — Ironer No. 110.503630) \$139.95, plus transportation charges. Maximum watts input, 1580. Listed by Underwriters' Laboratories. Two thermostats. Two speeds: high. 10.7 ft. per minute (about average); low, 7.5 ft. per minute. Roller, 26 in. long. Leakage current, very small (negligible), even under high humidity conditions. Result of laboratory ironing tests: poor to fair on nylon, rayon, and silk fabrics; good to very good on wool, cotton, and linen fabrics.

Universal, Model WM4515 (Landers, Frary & Clark, New Britain, Conn.) \$179.95. Maximum watts input, 1540 (1500). Two thermostats. Two speeds: high, 12.5 ft. per minute; low, 6.1 ft. per minute. Roller, 26 in. long. Leakage current, very small (negligible), even under high humidity conditions. Result of laboratory ironing tests, very good; the ironer was one of two best (with Maytag) in this respect. Ironer was similar in outward appearance and general construction details to General Electric and Simplex ironers tested. Listed by Underwriters' Laboratories.

Easy, Model 150 (Easy Washing Machine Corp., Syracuse 1) \$189.95. Listed by Underwriters' Laboratories. Maximum watts input, 1530. Two thermostats. One speed, 10.5 ft. per minute (about average). Roller, 26 in. long. Leakage current, negligible, even under high humidity conditions. Result of laboratory ironing tests, very good, but cotton broadcloth fabric was scorched. 3

Ironrite, Model 85 (Ironrite Inc., Mt. Clemens, Mich.) \$204.95; \$229.95 with cover. Listed by Underwriters' Laboratories. Maximum watts input, 1450 (1580). One thermostat. One speed, 13.4 ft. per minute (relatively fast). Roller, 24 in. long. Only ironer tested that had ironing shoe below the roller; roller moves against shoe to iron. Leakage current, negligible, even under high humidity conditions. Result of laboratory ironing tests: fair on nylon and rayon fabrics; good to very good on silk, wool, cotton, and linen fabrics.

The following ironer was tested in 1948 and reported in

the April 1948 Bulletin and is included in this report because the model is still current, according to the manufacturer.

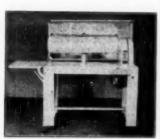
Thor Automagic Gladiron, Model 300 (Thor Corp., Cermak Rd. and 54 Ave., Chicago 50) \$99.50. A smaller than usual ironer on a tubular metal stand; folds for storage. Listed by Underwriters' Laboratories. Maximum watts input, 1610 at 118 volts (1620). One thermostat. One speed, 8.5 ft. per minute. Smaller than usual roll, 21 in. long, 10.6 in. circ@mference. Leakage current, negligibly small, even under high humidity conditions. Results of laboratory ironing tests, fairly good. In home ironing tests, some found the small diameter roll an advantage in ironing sleeves which could be slipped over it, and other pieces of the sort which require much shifting about on the larger roll to obtain satisfactory results; the small roll was somewhat of a disadvantage, however, for large flat pieces were more easily ironed on machines with larger rolls. cr48

B. Intermediate

Simplex S507 (Ironer Div., Speed Queen Corp., Algonquin, III.) \$149.95. Listed by Underwriters' Laboratories. Maximum watts input, 1520 (1500). Two thermostats. One speed, 10.7 ft. per minute. Roller, 26 in. long. Shock hazard present; leakage current under high humidity conditions, 4.0 ma. Results of laboratory ironing tests: very good on nylon, rayon, and silk fabrics; fair on wool; but scorched cotton and linen fabrics. This ironer was similar in outward appearance and general construction details to the General Electric and Universal ironers tested.

Supreme (Montgomery Ward's Cat. No. 85—179A) \$131.95, plus transportation charges. Listed by Underwriters' Laboratories. Maximum watts input, 1650 (1500). Two thermostats. Two speeds: high, 11.6 ft, per minute; low, 6.8 ft. per minute. Roller, 25 in. long. Roller moves against shoe to iron. Some shock hazard present; leakage current under high humidity conditions, 0.8 ma. Results of laboratory ironing tests, very good, but wool fabric was scorched.

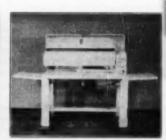
General Electric, Model AR60 (General Electric Co., Bridgeport 2, Conn.) \$159.95. Maximum watts input, 1540 (1500). Listed by Underwriters' Laboratories. Two thermostats. One speed, 12.8 ft. per minute (relatively [ast.]. Roller, 25.5 in. long. Shock hazard pres-



General Electric Model A R60



Frigidaire Model IK30



Maying Model B10

Brand			Squere Feet Possible to Iron Per	Controls		
and Model	in Inches	Minute, Minut Calculated Calcula		Shoe ¹	Roll Stop ³	
Easy 150	26	10.5	22.7	knee, adjustable for left or right; also hand	hand	
Frigidaire IK30	29	2.6* 10.3	6.3 24.9	foot	hand	
General Electric A R60	25.5	12.8	27.2	knee, right, adjustable; hand	knee, left	
Hotpoint 10LR4	26	8,9	19.3	knee, right	knee, right, not adjustable	
Ironrite 85	24	13.4	26.8	†knee, right, adjustable	knee, left	
Kenmore No. 110.503630	26	7.5° 10.7	16.3 23.2	knee, left, adjustable; hand	knee, right, adjustable; han	
Maytag B10	28.7	2.6* 10.4	6.2 24.9	knee, adjustable for left or right; hand	hand	
Simplex S507	26	10.7	23.2	knee, right, adjustable; hand	knee, left	
Supreme, Ward's No. 85—179A	25	6.8* 11.6	14.2 24.2	†knee, adjustable for left or right; hand	hand	
Universal WM4515	26	6.1* 12.5	13.2 27.1	knee, right, adjustable; hand	knee, left	

ent; leakage current under high humidity conditions, 3.0 ma. maximum. Results of laboratory tests, poor to fair on all but cotton broadcloth and linen fabrics. Ironer was similar in outward appearance and general construction details to Simplex and Universal ironers tested.

Frigidaire, Model IK30 (Frigidaire Div., General Motors Corp., Dayton, Ohio) \$199.75. Listed by Under-writers' Laboratories. Maximum watts input, 1550. Two thermostats. Two speeds: high, 10.3 ft. per minute; low, 2.6 ft. per minute. Roller, 29 in. long. Some shock hazard present; leakage current under high humidity conditions, 1.2 ma. Results of laboratory ironing tests, very good, but results on silk were poor when ironing was done at slow speed, and on wool was poor when ironing was done at fast speed. This ironer was similar in general construction details to the Maytag. A newer model, 10-30, is now available.

Maytag, Model B10 (The Maytag Co., Newton, Iowa) \$189.95. Listed by Underwriters' Laboratories. Maximum watts input, 1530. Two thermostats. Two speeds: high, 10.4 ft. per minute; low, 2.6 ft. per minute. Roller, 28.7 in. long. Some shock hazard present; leakage current under high humidity conditions, 1.2

^{*}Control brings roll into position against shoe.

This she control brings the shoe into position for ironing, or the roll into position against the shoe. This control also starts the roll rotating automatically smooth that on some ironers the roll will not turn when speed selector, if present, is set at "Press."

This control makes it possible to use the ironer for stationary pressing.

ma. Results of laboratory ironing tests, very good: one of two best (with Universal) in this respect. This ironer was similar in general construction details to the Frigidaire ironer tested.

3

C. Not Recommended

Hotpoint, Model 10LR4 (Hotpoint Inc., Chicago 44)

\$114.95. Listed by Underwriters' Laboratories. Maximum watts input, 1330 (1375). One thermostat. One speed, 8.9 ft. per minute (relatively slow). Roller, 26 in. long. Some shock hazard present; leakage current under high humidity conditions, 0.8 ma. Results of laboratory ironing tests, poor, possibly because of poor thermostat adjustment (temperatures found low during ironing test). Appliance lacked pilot light.

A Note to Teachers and Students

CR wishes to suggest that teachers more closely supervise students' requests for information or illustrative material from various organizations than some do at the present time. As we pointed out in our editorial in the March 1949 BULLETIN. many students write asking questions of a sort that are incapable of being answered briefly or simply: the very nature of the letters written would reveal this to almost any adult with even a little business or professional experience. They are also prone to request immediate attention to their inquiry "as it is very important." It would seem that teachers might reasonably point out that people to whom their students write will very likely be busily engaged in serving their clientele, their customers, or earning a living in other ways, and it would be hardly reasonable to expect them to drop everything to provide a comprehensive discussion of "money and banking services, filing, indexing and alphabetizing, record keeping, business activities, and our general welfare" (as was requested by a student on a postcard to CR). Teachers who permit or encourage the illiterate or unorganized letterwriting that characterizes a good deal of the correspondence sent by pupils to professional and research institutions should give careful thought to the problems involved in such inquiries and the means by which they may be made to have real educational value for the student. When the teacher assigns the task of writing CR for information, the student very often does not understand the purpose, or what kind of information he is supposed to get, or what he will do with it when he receives it, or how it can minister to his education. Some examples of such requests are given in the 1949 editorial already referred to. The following are additional examples taken from our file of

letters from students:

Could you tell me your opinion of what importance it is to the individual to learn all of what he can of consumer education, of how it would benefit the community and society as well as the individual, and of the other ways in which it would help.

Also would outline by name a group of courses and what each would consist of, . . . to better educate the student as a consumer. Also very important, what effect do you think would take place in the future, ten or fifteen years, if your schedule was used. . . .

Another example:

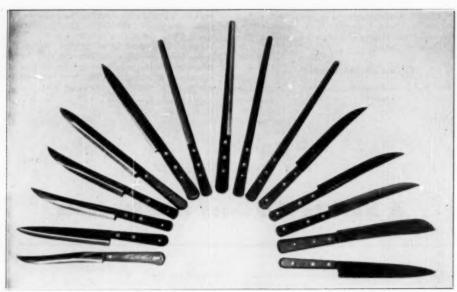
Would you please send me a copy of how meats are made or an envelope of information?

I am in the eighth grade and we are working on science program. I would like to have this for the program. Please don't disappoint us.

Another example:

As a pupil of the nineth grade science class, we are studing the bying of advertised commoditos. We would appreciate any free material you have to offer.

When letters are to be written, it would be important that the teacher read each one before it is mailed and require that the poorly prepared and illiterate ones be done over; that questions asked be intelligent and clearly phrased, to develop the information wanted, and that they impose no more than a reasonable burden on the recipient. These measures would not only help to educate the student, but would greatly mitigate the burden of correspondence on educational and professional organizations which wish to help consumers and the schools in every practical way but cannot take the time to deal with requests that do not express correctly what is wanted, or that ask for information that could not reasonably be supplied on a cost-free basis by any organization.



Fifteen knives used in CR's test of kitchen carving knives.

CARVING KNIVES

GOOD KNIFE is a boon to every house-wife and a mainstay in every kitchen. Nothing is more likely to try a housewife's patience than a knife that won't cut — one that just mutilates a fine roast instead of slicing it cleanly. In the kitchen, the favorite knife has a place of honor which is equivalent to that of Dad's favorite pipe or Mother's favorite rocking chair. In time, the kitchen knife is worn out from hard use and too much unskilled resharpening, or is mislaid and has to be replaced by a new one. Where can a knife as good as the old one be bought?

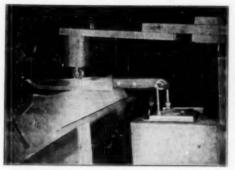
Today knives are usually made of stainless, chrome-vanadium, or high-carbon steels. Stainless steel knives are attractive to the housewife, since they generally way bright and shiny. These knives, however, have two serious drawbacks: their edges cannot be sharpened to a high degree of keenness, nor do the edges long hold the sharpness they are given in grinding. However, the "Frozen-Heat" stainless, manufactured by the Robeson Cutlery Co., has been on the market for a while and has proved very satisfactory. This steel takes a sharp edge and holds it well. These qualities represent good value in a knife. The manufacturer claims that his method of treating knife blades is responsible for their toughness, stating that the process

involves heating the blades to a temperature below the melting point but higher than the temperature normally used for that purpose, bathing them in quenching oil, and then subjecting them to low sub-zero temperatures. The blades are then reheated, cooled to room temperature, and tempered.

The type and size of knife suitable to the various needs of the kitchen, and the kind of handle, should also be considered in buying cutlery. The materials used in some of these handles may be a cheap plastic; some of them may be similar to celluloid in having a high degree of susceptibility to ignition and quick burning.

Some manufacturers cater to the restaurant and butcher trade. These brands are seldom offered in department stores or small retail outlets other than special cutlery or restaurant supply dealers. Likewise, some brands are offered only as high-priced sets, or as highly finished and ornamented "prestige" carvers. The samples chosen for CR's tests were of a type suitable for general household use, either at the table or in the kitchen; brands used in restaurants or butcher shops or bought for prestige or table decoration were not included.

Since the value of a carving knife depends primarily upon the keenness of its cutting edge and the ability of the edge to stand up well in use, the test



Device for testing sharpness of knives and effect of dulling process on sharpness, by number of pages of telephone directory cut by a given number of strokes under constant load.

program was selected to determine these properties. Hardness tests and examinations of edges with the microscope were also carried out.

The keenness of the knives was determined by their ability to cut paper, under conditions established by a specially devised apparatus providing for vertical cutting under a uniform force. The number of pages of a big-city telephone directory that were cut under these conditions was counted.

The dulling apparatus consisted of holders for the knives and lead weights of about 200 grams each applied to force the knife into contact with the material used for dulling the edge, and a motor to produce reciprocating action of the blade. Two materials, Lucite plastic and steel of C-15 Rockwell hardness, were used, and the knife was reciprocated against these. This test gave an indication of the ability of the blade to stand up under the normal use in the kitchen in which the knife edge might come into contact with bone (simulated by Lucite) or a fork or a skewer (simulated by the steel rod) that may have escaped detection.

The hardness of each blade tested was determined by the use of a Rockwell bench-type hardness tester. Five places were tested at proper points on each blade.

The 2½-inch dulled sections and the original portion of the edges were examined with a microscope at a magnification of 200 diameters. The microscopic examinations assisted in explaining some of the anomalies of the test results. All the cutting edges, as received, showed a more or less continuous minute "feather" or "wire" edge. This edge reduced the keenness of the blade. The Robeson No. 42724 knife had the least "feather" edge and was likewise the sharpest. When dulled on Lucite, this edge first turned, then as the blade cut into the Lucite, a polishing or honing action occurred which caused an increase in keenness. This action was more apparent on harder knife

steels. Some knives, such as the Robeson 776 and Kabar samples, became increasingly dull under the dulling test on steel. When examined under a microscope, their edges were found to have turned. The knives that showed considerable increases in sharpness were found to have edges that were worn off rather than turned. This kind of wear is relatively undesirable, since the edge that remains is not durable, and resharpening will be difficult, as it may require removal of considerable steel before a good cutting edge is provided. A turned edge, on the other hand, can be rectified by light stoning or with use of a butcher's sharpening steel.

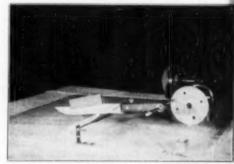
The Robeson claim that their "Frozen-Heat" stainless steel gives a long-lasting sharp edge was substantiated. The high-carbon steel was next in edge durability, then the chrome-vanadium and vanadium alloy steels, and lastly the stainless steels.

There were, however, some deviations. One knife, the Craftsman 9-9705, was far from the norm in having a much greater resistance to dulling both on the Lucite rod and on the steel rod, and in these respects it differed from the Craftsman 9-9707 knife which, according to the catalog, had the same specifications so far as the general characteristics of the blade were concerned. On this account, additional samples were purchased and tested. The test results of four new samples (two of 9-9705, two of 9-9707) and the original 9-9707 were consistent.

A. Recommended

Flint Vanadium "8" Roast Slicer (Ekco Products Co., Chicago) \$2.25. Vanadium steel, hollow ground. Chromium plated. Rosewood handle. Keenness somewhat less than Robeson knives as received; well maintained on Lucite rod used in the dulling test. Dulled rapidly on steel (edge was turned by the dulling operation). Hardness, about average.

Case "Ace" CA-283-8 Butcher Slicer (W. R. Case & Sons Cutlery Co., Bradford, Pa.) \$3. Chrome-vanadiuna steel, hollow ground. Chromium plated. Hard rubber (or similar) handle. Keenness as received and its



Dulling apparatus consisting of holder for the knife, 200gram weight, plastic or steel rod for dulling the edge, and motor to produce reciprocating action of the blade.

maintenance in cutting Lucite substantially identical with Kabar, but more durable on steel (edge was turned by the dulling operation). Hardness, very satisfactory. 3 Kabar French Slicer (Union Cutlery Co., Inc., Olean, N. Y.) \$3.50. High-carbon steel, hollow ground. Chromium plated. Wood-plastic laminated handle. Keenness somewhat less than Flint as received and was well maintained on Lucite. Somewhat more durable on steel than Flint, but was the same as when dulled on steel after 200 strokes (edge was turned by the dulling

operation). Hardness, very satisfactory.

**Robeson "Shur-edge" Staisless No. 776 Narrow French
**Carver (Robeson Cutlery Co., Inc., Perry, N. Y.)

**\$3.75. A stainless steel knife made by a new "FrozenHeat" process. **Pakkawood handle, a plastic-wood laminate. Very keen as received, and maintained sharpness
well when dulled on **Lucite* rod in dulling test; was also
the sharpest knife after 100 strokes on steel (was dulled
with a turned edge which was readily improved by honing). Maker guarantees edge for 3 years. Hardness,
very satisfactory.

**3

**Topical Control of the Processing States of the Processin

Robeson "Shur-edge" No. 42724 Slicer (Robeson Cutlery Co., Inc.) \$2.75. Chrome-vanadium steel, hollow ground. Not a "Frozen-Heat" process knife. Chromium plated. Pakkawood handle. Keenest knife of group as received. Edge well maintained during dulling on Lucite, but was fifth sharpest after 100 strokes on steel (edge was turned by the dulling operation). Hardness, very satisfactory. 3

B. Intermediate

Craftsman (Distributed by Sears, Roebuck & Co.) Butcher

Slicer, Cat. No. 9—9705; Roast Slicer, Cat. No. 9—9707; both \$1.89, plus postage. Chrome-vanadium steel, hollow ground. Rosewood handies. The average keenness was somewhat less than any of the A group, though when dulled on Lucite, the better specimens closely approximated the Case and Kabar knives. The Craftsman was less durable when dulled on steel, and the dulling performance on steel was variable (microscopic examinations showed worn, turned, and partly turned edges). Hardness range, average or better.

C. Not Recommended

Dunlap Stainless French Cook (Sears-Roebuck's Cat. No. 9595) 50c. Stainless steel, flat ground. Rosewood handle. Compared favorably with both Case and Kabar knives, as received, and when dulled on Lucite. The first 100 strokes on the steel rod, however, caused severe dulling (complete failure of the edge occurred, and subsequent wear, as shown by the test results and microscope, was severe). Hardness, below average.

Wards (Distributed by Montgomery Ward & Co.) Butcher Knife, Cat. No. 86—4981, 98c, plus postage; French Slicer, Cat. No. 86—5065, \$1.69, plus postage; Ham and Beef Slicer, Cat. No. 86—5066, \$1.69, plus postage; Stainless steel, hollow ground. First-named has rosewood handle, other 2 hard rubber. The quality of the three blades appeared to be substantially identical. Keenness, as received, was low and poorly maintained in the test on Lucite. In fact, the dulling on Lucite was so extensive that little further loss occurred on steel. (All edges were worn away in the dulling tests.) Hardness, low on all samples. Not listed in current catalog.

B. - A New Vitamin Promotion

THE latest advertising nurry in field is vitamin B₁₂ (the anti-pernicious-anemia THE latest advertising flurry in the vitamin vitamin which has been actively sought for over 20 years), whose properties were lauded as remarkable in an issue of the widely read Reader's Digest. The National Better Business Bureau has recently warned that there are no nutritional or therapeutic claims for vitamin B12 (first isolated in 1948) which can properly be made in advertising to the general public at this time. The claims that have been made by promoters of the material (supported by expectations expressed in Paul de Kruif's article in Reader's Digest for February 1950) have included such benefits as "better blood, steadier nerves, more pep, and longer and stronger life." Additional claims were that B12 would give the

user a new sense of well-being or a new lease on life.

Authorities consulted by the National Better Business Bureau have found such claims entirely objectionable. It is not even known whether vitamin B_{12} is essential in human nutrition. Although it does have value in the treatment of certain disease conditions, there is no reason as yet to suppose that it is needed as a dietary supplement, and there is certainly no reason to regard B_{12} as something that should be consumed by the general public in any case where it is not actually prescribed by a medical man well qualified in the field of vitamin therapy. Meat, egg yolk, milk, and cheese (all animal products) are relatively good sources of B_{12} ; food substances from plants seem not to contain measurable amounts of it.

Developing and Developers

FINENESS of grain of the developed image has been the subject of much discussion by both amateurs and advanced workers in photography. Fine-grain development is of importance mainly to the photographer using a miniature camera; with very small negatives, great magnification is necessarily used in enlarging, and the "grain size" or size of the individual clumps of silver particles on development largely determines the maximum size of a satisfactory enlargement which can be made from any given negative. In general, graininess increases with the speed of the emulsion.

There are many factors which govern the characteristics of the final negative and print. Some factors are controlled by the manufacturer of the film in the preparation of the emulsion, and each of the many different kinds of emulsions is a compromise that yields films with certain characteristics. From these the photographer must, by study, and by trial and error, choose the one which meets his needs or requirements best, and whose disadvantages or shortcomings he can tolerate in his par-

ticular work.

When suitable equipment is used, success in photography is primarily a matter of exposure and development. In exposing a film, there are many things that determine the quality of the final result. The combination of the size of the aperture and the length of time of exposure is important. Fortunately, films allow a fairly wide margin for error in choosing exposure time. Important also are lighting conditions, correct focus, proper placing of the object in the finder or ground-glass screen, composition, and care in the actual taking of the picture that the camera is steady.

After a number of exposures, which may often represent hours of painstaking effort, if they are more than casual snapshots, the film is ready to be developed. There is a wide variety of prepared products from which the photographer can choose, or the developer can be made up from stock

chemicals.

Certain precautions must be observed in developing. Cleanliness in the various operations is very important if spots and stains are to be avoided. If the photographer prepares the developer from stock chemicals, it is necessary to dissolve the required amounts of chemicals completely and add them to the solution in the correct order. It is possible to adjust the constituents of the developer and the developing time to suit certain exposure conditions, but that can be done only after a good deal of familiarity with a developer has been attained. Using a developer solution which is near

exhaustion is never wise, because a poor negative will usually be the result. The chemical composition and the development characteristics change when the first film is developed and change further with each succeeding film. Since some of the active constituents have been removed or changed in character, it is intended in the "replenishment method" that these will be replaced by the addition of another solution or "replenisher" to restore it to its original condition. In actual practice, however, this is only approximate, and after the first development, the composition is not known accurately. For this reason, many photographers prefer to use a developer of known composition each time, that is, one freshly mixed from the dry constituents, rather than depend on what is called the "replenishment method." Of the brands of developer tested, Finex and Panthermic 777 are intended by the manufacturer for use only by replenishment, and a replenisher is available for the others, except Edwal-12, Edwal-20, Edwal Minicol, and Von L S-35.

CR has tested a number of different developers for the relative effective speed that the developer imparted to the emulsion and the granularity of the negative. To determine the approximate relative emulsion speed, a number of rolls of Super XX film were exposed so that each frame on a roll received one-half the exposure of the preceding frame and each was developed according to the manufacturers' directions. From these, the approximate relative speeds were determined, taking the speed produced by the standard Eastman D-76 as unity (see Table I).

In order to evaluate the granularity, negativewere examined under magnification, for no way has as yet been discovered to evaluate grain in a fully objective way. For any stated emulsion, the granular appearance of the final print may vary consid-

Table I

Approximate Relative Effective Speeds that the Developers Imparted to the Emulsion

1	1/2	1/4
Kodak D-76*	Edwal Thermo-Fine	Edwal-20
Devel-2	Finex	Edwal Minicol
Edwal-12	FR Super X-33	Kodak DK-20
	Kodak Microdol	Panthermic 777
	Von L S-35	

Taking the speed produced by the standard Kodak D-76 as unity with the Super XX film used for all tests.

Table II

Relative Fineness of Grain

Finest	Next Finest	Fine	Medium	Ordinary
Edwal-20	Finex	Edwal-12	Kodak D-76	Devel-2
Panthermic 777		Edwal Minicol	FR Super X-33	Von L S-35
		Edwal Thermo-Fine		
		Kodak DK-20		
		Kodak Microdol		

erably, depending upon the size and shape of the grain clusters produced by the developer, the surface and contrast of the paper, the amount of detail in the image (an image full of fine detail has less appearance of granularity than one containing large masses), and the type of illumination in the enlarger. The comparative listings in Table II are necessarily approximate and subject to these limiting considerations.

The user, in order to obtain satisfactory results with any combination of film, developer, and paper, must take the trouble to experiment with one combination until he becomes thoroughly familiar with the technique of obtaining the results desired. Experienced and intelligent use of a developer rather than small differences in grain-producing characteristics determine the final result — within limits, of

All developers tested were found capable of producing satisfactory negatives. Of those tested, *Edwal-12* and *Edwal-20*, at least, contained paraphenylenediamine, a very toxic substance and one to which some persons are sensitive; considerable caution should always be exercised in the use of developers containing paraphenylenediamine.

Prices listed are per quart of working solution; amounts in parentheses are the calculated approximate costs of development per roll using the number of rolls as given by the manufacturer, unless otherwise noted.

A. Recommended

- Directions very sketchy. Grain was coarser than with D-76.
- Elwal-20 (The Edwal Laboratories, Inc., 732 Federal St., Chicago 5) \$1.23 in liquid form, 77c in dry form (10.3-12.3c for liquid form, 6.4-7.7c for dry form). The first negative developed appeared to have low density; a second one appeared normal; presumably some dissolved silver was required for "physical" development. This developer and Panthermic 777 gave the finest grain structure of the developers tested, as viewed under magnification. Warning: Edwal-20 contains the very toxic coal-tar dye intermediate, paraphenylenediamine (see text).

- Edwal-12 (The Edwal Laboratories, Inc.) \$1.23 in liquid form, 77c in dry form (8.2-10.3c for liquid form, 5.1-6.4c for dry form). Warning: Contains paraphenylenediamine.
- Edwal Minicol (The Edwal Laboratories, Inc.) \$1.23 in liquid form, 76c in dry form (12.3c for liquid form, 7.6c for dry form). As stated by manufacturer, it seemed to give somewhat finer grain with medium-speed [Plus-X] films than did Edwal-20. This form of Edwal does not contain paraphenylenediamine, as Edwal-12 and Edwal-20 do.
- Edwal Thermo-Fine (The Edwal Laboratories, Inc.) 60c in liquid form (6.0-10.0c), 45c in dry form (4.5-7.5c).
 Finex (Ansco, Binghamton, N. Y.) \$3.84 in liquid form—
- 1 qt. developer \$1.44, four 8-oz. bottles replenisher \$2.40 (7.4c). Replenishment system only. CR understands that this developer has been temporarily discontinued.
- FR Super X-33 (The FR Corp., 951 Brook Ave., New York 56) 76c in liquid form only (5.1c, assuming 15 can be done).
- Kodak DK-20. No longer supplied in packaged form but can be made up from published formula. 28c, assuming the price per quart of working solution is approximately the same as that of D-76 (4.7c).
- Kodak D-76 (Eastman Kodak Co., Rochester 4, N. Y.) 28c in dry form (4.7c). Generally believed to bring out the maximum possible emulsion speed of a film.
- Kodak Microdol (Eastman Kodak Co.) 80c in liquid form, 40c in dry form (10c for liquid form, 5c for dry form). Understood to be substantially DK-20 plus a preservative.
- Panthermic 777 (Harvey Photochemicals, Inc., Newton, N. J.) \$3 in liquid form \$1 for 1 qt. of developer and \$2 for 2 pt. of replenisher; \$2.40 in dry form for enough to make 1 liter each of developer and replenisher (14.3c for liquid form, 10.9c for dry form). Replenishment system only (see text). Because the first roll showed low density when developed for 12¾ minutes at 70°F as recommended by the manufacturer for a gamma of 0.8, a second roll was exposed and developed; the result was the same as before. This developer and Edwal-20 gave finest grain structure of the developers tested, as viewed under magnification.

C. Not Recommended

Von L S-35 (Mon-Blanc Chemical Co., Fort Wayne 3, Ind.) \$3 (12c, assuming 25 rolls, as claimed by manufacturer, can be done). Noticeably coarser grain than that given by D-76. Maker claimed effective speed on

be 10 times normal in daylight; actual speed, as used, without agitation as directed, about one-half that of D-76.

Developer for "Outdated" Emulsions

Films that have been stored for so long that they have become outdated will very likely yield inferior results, simply because the emulsion has deteriorated with the passing of time. This deterioration is accelerated if film or plates are stored under adverse conditions such as those involving excessive heat or humidity.

Very often, however, a film is not developed at the time it is exposed, and regardless of the length of time that has passed, there is always the hope that there might be some way to make up for the

expected deterioration.

A developer called *Medax* has been offered for such circumstances according to the label which says, "prevents fog in all, including OUTDATED emulsions, provided latter not stored in adverse conditions." CR's tests indicate that it was not

effective as claimed.

Films with expiration dates of March 1949 (Eastman Plus-X) and July 1942 (Panatomic-X) as well as some Panatomic-X that was known to have been exposed in the summer of 1941 and not stored under "adverse conditions" as far as is known, were developed, some of each group in Medax, and some in pyro or pyro-metol developers. Results indicated no important difference in the action of Medax and the other developers; Medax was ineffective in overcoming the effects of deterioration on all the films used for the test.

C. Not Recommended

Medax (Medapower, Inc., 452 Fifth Ave., New York 18) \$1 by mail order for a package of dry chemicals sufficient to make 2 qt. of working solution.

Combination Iron Stand and Cord Hanger

THERE are a great many housewives who feel that ironing with a hand iron would be much simpler if something could be done to solve the problem of an electrical cord which is always in the way or pulls over clothes that have already been ironed, so as to muss them. The U. S. Department of Agriculture suggested one means which helps to solve the problem, namely, to locate the convenience outlet on a wall faced by the user and 36 inches above the board. Houseware stores and department stores offer cord hangers which are also an attempt at a solution of the problem. One of these is the Rest-A-Cord, a combination cord holder and iron stand that clamps to any ironing board. It sells at \$1.75, and is made by the Wes-Ko Distribu-

tors, Inc., 2619 Santa Fe Ave., Los Angeles 11. The rest for the iron is made of sheet aluminum insulated with asbestos and turns on its base to any position for the convenience of the ironer. The cord hanger, made of steel wire, stands about 23 inches above the board and can be lowered to a horizontal position when the ironing board is folded for storage.

Eleven housewives used the pad and rest and compared it for convenience with an outlet placed at 36 inches above the board. One of the users did not differentiate between the two as to convenience; of the other ten, five preferred the holder and five found the arrangement of the outlet placed 36 inches above the board more satisfactory. It is considered that where it is not convenient or desirable to locate an electrical outlet at the position mentioned, the Rest-A-Cord device would be a desirable purchase. For the housewife who uses her left hand for ironing, the Rest-A-Cord would be more convenient than the high outlet, unless the iron was one having a cord in a position especially designed for the left-handed user.

Winding One's Watch

DEALERS in watches have much trouble with customers who complain that their watch is out of order or stops unaccountably. Very often it will turn out upon investigation that there is nothing more involved than failure to wind the watch regularly and fully. Many people wind a watch until resistance to the motion seems to increase and then stop in the belief that it is fully wound. Actually, it commonly occurs that a watch complained of in this respect will have been wound only one-half to three-quarters.

Complete winding of a watch is important for good timekeeping and for the certainty that the watch will not be found to have stopped at some moment when correct time is needed. Contrary to common belief, winding a watch too tight is not an important cause of broken main springs; most of them break at some time when the watch

is not being wound.

Watch users often assume that winding a watch up tightly will make it stop. This is not correct. The opinion possibly arises because watches that come in for repair because they have stopped have usually been wound up tightly. This comes about because a person who finds his watch stopped will check it to see if it is wound, and since it does not run, it will be and remain wound up tightly when it gets to the repair shop.

The only precaution necessary in winding your watch, if you are an energetic winder, is to slow up the winding operation when the spring seems to be almost fully wound up, and then to turn slowly

until the winding is finished.

NUTRILITE

MANY of our readers write for information concerning various vitamin and mineral preparations; one of those most inquired about recently has been Nutrilite Food Supplement. This product, according to the formula given on the box, would properly be termed a Therapeutic Formula vitamin preparation, with separate mineral tablets; it is a concentrate of alfalfa, watercress, parsley, and synthetic vitamins.

Nutritite, in the so-called "high-potency" form, has been sold by door-to-door canvassers at the luxury price of \$19.50 for a month's supply, or by a special plan whereby consumers agree to buy a year's supply at a cost of approximately \$200. Prospective purchasers, before receiving the usual sales' talk, were given a booklet to read on "How to Get Well and Stay Well," which appears to serve chiefly as sales puffery for the product, with some pseudo-scientific discussion intended to persuade the customer that he needs vitamins to feel better,

and to get over whatever may ail him.

The quack nature of the claims for the product is evident from one agent's sales letter: "How long will it take to regain health, you ask," and then it continues "I can only quote Dr. Quigley, one of our outstanding Doctors of Medicine, who . . . says . . . that a person suffering from years of food deficiencies should regain optimum health within a period of time from six months to two year [sic], with a high vitamin and mineral intake. It has been our experience that the average person taking Nutrilite will be nearly normal in twelve months."

It smacks strongly of quackery to attempt to assure people who are not known to be ill, and whose illness, if any, has not been diagnosed, that they "will be nearly normal in twelve months." That is one distinguishing element of the patent medicine trade, to promise the cure of a disease which perhaps is not even present, and which has not been diagnosed and its proper treatment determined by

a professionally qualified person.

The letter goes on to say, "I am enclosing the top of one of the boxes of Nutrilite, and you can see that it is a beautifully balanced product." How could a layman possibly look at the formula for a complex mixture of vitamins and mineral substances and see that it was or was not "beautifully balanced?" As a matter of fact, few physicians, even, could come readily to a dependable conclusion by inspection of the formula.

Incidentally, the promoters of Nutrilite seem to change their opinions from time to time on what makes a good "balance," for the list on a box label received in 1948 did not include a number of substances listed on a similar box label received in

1950, and the amounts of some of the substances given on both labels had been changed.

Nutrilite is now in trouble with the federal Food and Drug Administration. The promoters asked the federal courts to restrain the Food and Drug Administration from its multiple seizures of the product; something like 11 lots of Nutrilite were seized by agents of the Food and Drug Administration in various parts of the country. The government claimed that misrepresentations were made in the booklet furnished with the product, entitled, "How to Get Well and Stay Well." The booklet at one time used in promotion of Nutrilite claimed that Nutrilite had "cured or greatly helped" various "common ailments" such as "Low blood pressure, Ulcers, Mental depression, Pyorrhea, Muscular twitching, Rickets, Worry over small things, Tonsilitis, Hay Fever, Sensitiveness to noise, Underweight, Easily tired, Gas in Stomach, Cuts heal slowly, Faulty vision, Headache, Constipation, Anemia, Boils, Flabby tissues, Hysterical tendency, Eczema, Overweight, Faulty memory, Lack of ambition. Certain bone conditions, Nervousness, Nosebleed, Insomnia (sleeplessness), Allergies, Asthma, Restlessness, Bad skin color, Poor appetite, Billiousness, Neuritis, Night blindness, Migraine, High blood pressure, Sinus trouble, Lack of concentration, Dental caries, Irregular heartbeat, Colitis, Craving for sour foods, Arthritis (rheumatism), Neuralgia, Deafness, Subject to colds." This booklet was subsequently revised and direct curative claims were eliminated. Nevertheless, the revised booklet gave case histories alleging that Nutrilite had brought relief from such ailments as diabetes, feeblemindedness, stomach pains, sneezing and weeping. The promoter then directed that its salesmen should remove the pages which contained these case histories, but continued recommendation of the booklet to those who "wanted to get well and stay well.'

The Supreme Court recently passed on this case; two members of the Court dissented from the opinion of others, and expressed the view that the government had proceeded improperly by refusing an administrative hearing to the promoters of Nutrilite, and that Congress did not intend to cut off the right of access to the courts to determine whether the enforcing agency had acted properly in making multiple seizures of the product. (It may be remarked that there has been a dangerous tendency in recent government practice and in court decisions to bar a citizen's access to the courts in a case where a government agency may have taken an arbitrary position respecting his rights.) This position of the dissenting judges concerns a matter

of principle with respect to federal law enforcement, and does not alter the fact that this particular concern had been guilty of gross misrepresentation of the values and usefulness of its product.

Calculations indicated that the product was approximately 100% overpriced compared with "ethical" vitamin-mineral preparations. Informed consumers well know that vitamins and minerals are not best obtained in pill or tablet form; and that the best and surest safeguard to health is in eating a well-balanced, varied diet, rather than a "balanced" vitamin preparation. Moreover, as we have pointed out from time to time in our BULLETINS, the need for such preparations should be determined by a physician, and they should not be used in selfmedication, for the "Therapeutic Formula" is not intended to supplement dietary lack of vitamins, but to be used in disease conditions under qualified medical direction, and of course after diagnosis by a qualified medical man. It is a fortunate thing for the purveyors of vitamin preparations that, for the most part, vitamins are harmless; nevertheless, an excessive intake of vitamins can be a disadvantage, and it is now coming to be recognized that vitamins taken in medicine and not in the balanced form in which they appear in natural foods may in some cases be harmful to the system. Besides, there are several of the vitamins that when taken in excess, and beyond the body's requirement, cause definite harm to the health, and may cause poor assimilation of certain kinds of food.

"Battery Improvers"

Duble Power, a battery "improver," has recently been tested and found to be another of a long series of similar chemical substances intended to be added to storage batteries to improve performance. (The names of some of these have been: Bat-Re-Nu, Nu-Zip Battery Desulphater, Ever-Charge, Electro-Lyfe, Nu-Life, Lightning, Hi-Ball, Charge-O-Lyte, Acculite, Batrylife.)

The Bureau of Standards some years ago had tested over 100 brands of products in this category. It found none of them of benefit to the batteries, and some were likely to do serious harm. The National Better Business Bureau, too, has done valuable work in giving wide publicity among merchants to the Bureau's findings. Typically, the so-called "battery improvers" contain Epsom salts, although sulphuric acid, and salts of sodium, magnesium, potassium, aluminum have also been used.

Analysis of *Duble Power* showed that it consisted approximately of 3 parts sodium sulfate and one part magnesium sulfate (commonly known as Epsom salts).

Various claims are made for the battery improvers, including "give longer life by stopping lead sulphate and keeping the cells equalized in amperage and voltage," "will prevent your battery from being in a totally discharged condition," "no more recharging of battery," "gives longer life, whiter brighter lights, hotter spark. . . one application lasts life of battery." In the case of one product, there was even "evidence" furnished in the form of a memorandum from a unit of the Quartermaster Corps, asserting that the product was considered to be effective. So convincing have the claims for these products been, that one of the major journals of this country meant for the information of professional chemists ran as a news item an announcement of a new product that when added to batteries was said to lengthen their life expectancy and to extend the life of mechanically sound old batteries and increase their capacity. One manufacturer of this class of chemical specialty utilized the services of a commercial testing laboratory to "prove" that his product "exerts a beneficial effect on the battery providing that there are no internal shorts or buckled plates," and even exhibited a galaxy of graph sheets to show the improvement in battery performance with the use of the material.

Hardly a consumer in a hundred but would be convinced by such evidence that the product would keep his battery in good condition longer and 'equalize" amperage and voltage between cells Another promoter of a battery dope, claiming an increase of battery life by 12 to 18 months, used as a sales argument that his product was guaranteed by a product liability policy written by a large indemnity company in the sum of \$100,000. When the insurance company learned that their policy was being used in this misleading fashion, they cancelled it. The wise consumer will not allow himself to be convinced by advertising or sales men's arguments for battery improvers. The one which have been mentioned are but a few of the many which have been offered to technically untrained users of storage batteries, consumers, and none has ever been known to be effective. A point always to be remembered is that when a product in this category is found that would be really useful and effective, technical and professional experts writing in technical journals will know about it, not just promoters seeking to make a quick dollar by a pseudo-scientific "invention." In sum, products effective in rejuvenating storage batteries or substantially lengthening their life do not exist, and nothing is happening in the field of battery research which would indicate that such materials or mixtures will be available in the forseeable future.

Photographic Equipment

Photo-Pac Camera

A "Newsfeature" item sent out by the Associated Press described a new kind of camera developed by the Photo-Pac Camera Mfg. Co., Inc., which is made out of cardboard and arranged so that the camera with its exposures is mailed to the manufacturer for development and printing. The whole thing complete, film, developing and printing, and use of the camera costs \$1.49. Since this idea may have a certain appeal to people who feel that they take too few pictures to warrant owning a camera. CR has made a brief study of the camera. The Photo-Pac has a single lens, a simple one-speed snapshot shutter which would make it unsuitable for anything but good lighting conditions, and comes ready for use, loaded with 12 exposures of unperforated 35 mm. film. When the exposures have been made, the user fills in his return address on the side of the camera, adds postage, and mails it to the manufacturer. The manufacturer then develops the film and provides prints about 23/4 x 4 inches.

The camera is of somewhat crude construction. Film is advanced by pushing the numbered backing paper forward through an opening in the camera case with the moistened thumb. Four of the 12 prints from the first exposures made were fairly good; the remainder were passable to poor because of camera motion, which was difficult to avoid because of the light weight of the camera and method of releasing the shutter. The shutter release is operated by being pushed alternately up and down; the upward push was found to be very awkward and camera motion tended to result even when the operation was done with great care by an experienced photographer. With a second camera tested, 9 of the 12 exposures were satisfactory; of the remainder, one was badly blurred by camera motion and the last two exposures overlapped and were slightly fogged because of difficulty in advancing the film.

If a No. 616 (2½ x 4¼ in.) 8-exposure roll of film were purchased, exposed in a regular camera, and developed and printed by a camera store, the total cost per exposure would be about 12 cents per print (if developed and printed by a mail-order firm, 8 cents per print), compared to 12½ cents per print for the *Photo-Pac*. It must be remembered, however, that a picture made with 35 mm. film and enlarged will not be as good as a picture made from a film of the larger size, originally, without enlargement. The *Photo-Pac* illustrated the fact that what appears to be a means of economy may not

be so in fact compared with other available and familiar methods or devices.

C. Not Recommended

Photo-Pac (Photo-Pac Camera Mfg. Co., Inc., 16 E. 42 St., New York 17) \$1.49. There is a possibility that some might consider the camera useful for special situations where no other camera would be available.

Miniature (35 mm.) Cameras A. Recommended

Voigtlander Vito II (Distributed by Willoughbys, 110 W. 32 St., New York 1) \$49.50 including federal excise tax. Used standard perforated 35 mm. film in 20 or 36 exposure cartridges to make 24 x 36 mm. (15/16 x 1-7/16 in.) negatives. Equipped with coated Color Skopar f:3.5 lens of 50 mm. focal length. Could be focused from 3.5 ft. to infinity by rotation of front lens cell. Prontor-S shutter (of the pre-set type), 1/300, 1/100, 1/50, 1/25, 1/10, 1/5, 1/2, 1 second, and bulb. Had built-in flash synchronization and delayed action. Take-up spool is removable, permitting user to remove film in darkroom without necessity of rewinding. This is desirable as it eliminates possibility of scratching of the emulsion during rewinding. Shutter speeds were approximately proportional. Lens quality, good. Operation of camera was found satisfactory in all respects. This camera is also available with Compur Rapid shutter at \$57.50, including tax.

Retina I (Eastman Kodak Co., Rochester, N.Y.) \$72.75, including federal excise tax. Used standard perforated 35 mm. film in 20 or 36 exposure cartridges to make 24 x 36 mm. (15/16 x 1-7/16 in.) negatives. Equipped with coated Schneider Xenar f:3.5 lens of 50 mm. focal length. Could be focused from 3.5 ft. to infinity by movement of entire lens in helical mount. Standard Compur Rapid shutter with rated speeds of 1/500, 1/250, 1/100, 1/50, 1/25, 1/10, 1/5, 1/2, 1 second, and bulb. (Not equipped with delayed action or flash synchronization.) Had safety device to prevent double exposures. Shutter speeds were approximately proportional. Lens quality, good. Operation of camera was satisfactory in all respects. Note: This rating does not apply to cameras equipped with Kodak Ektar lenses. (See CR's March 1949 Bulletin.)







Retino I

Roll-Film Cameras

A. Recommended

Voiglander Baby Bessa (Distributed by Willoughbys, 110 W. 32 St., New York 1) \$64.50 including federal excise tax. Takes either No. 120 or No. 620 rolls to make twelve 2½ x 2½ in. pictures. Equipped with coated Color-Skopar f:3.5 lens of 75 mm. focal length. Focuses from 3½ ft. to infinity by rotation of front lens cell. Compur Rapid shutter with rated speeds of 1/500, 1/500, 1/25, 1/10, 1/5, 1/2, 1 second, and bulb. Quality of lens, very good; equivalent to that of the Color-Skopar 105 mm. on Rangefinder Bessa. Shutter speeds approximately proportional, as they should be A well-made camera.

Voigtlander Rangefinder Bessa II (Distributed by Willoughbys) \$115 including federal excise tax. Used No. 120 or No. 620 roll film to make eight 21/4 x 31/4 in. pictures. Equipped with coated Color-Skopar f:3.5 lens of 105 mm. focal length. Focuses from 3.5 ft. to infinity by rotation of complete lens. Flash synchronized Compur Rapid shutter with rated speeds of 1/400, 1/200, 1/100, 1/50, 1/25, 1/10, 1/5, 1/2, 1 second, and bulb. Had coupled rangefinder of superimposed image type with single window for range-finding and view finding (desirable). Quality of lens, equal or superior to any other f:3.5 lens previously tested except the Voigtlander Heliar 1:3.5. Shutter speeds were approximately proportional. Camera was well and ruggedly made, operated smoothly, and was convenient to use. This camera is also available with Heliar f:3.5 lens, which is of excellent quality, at \$152.50 including tax.

B. Intermediate

Kodak Tourist (Eastman Kodal: Co., Rochester, N.Y.) \$47.50 including federal excise tax. Used No. 620 rolls to make eight 2½ x 3½ in. pictures. Equipped with Kodak Anaston f.6.3 (uncoated) lens of 105 mm. focal length. Could be focused from 3.5 ft. to infinity by rotation of front lens cell. Flash Diomatic shutter (self-setting type) with rated speeds of 1/100, 1/50, 1/25 second, time, and bulb. Lens quality, mediocre, about equivalent to that of the poorer triplet anastigmats. Shutter speeds were approximately proportional. Construction and finish, only fair. Judged to be much overpriced.

Voiglander Bessa (Distributed by Willoughbys, Inc.) \$49.50 including federal excise tax. Used No. 120 roll film to make eight 2½ x 3½ in. pictures or sixteen 1½ x 2½ in. pictures. Equipped with coated Vaskar f:4.5 lens of 105 mm. focal length. Could be focused from 5 ft. to infinity by rotation of front lens cell. Prontor S shutter (of the pre-set type), 1/250, 1/100. 1/50, 1/25, 1/10, 1/5, 1/2, 1 second, time, and bulb, ouilt-in flash synchronization and delayed action. Quality of lens, fair. Shutter speeds were approximately proportional. Shutter was judged to be, initially at least, about equivalent to the Compur, though its life expectancy may not be as great. Mechanical construction and finish, judged good. This camera is also available in a 2½ x 2½ in. model at the same price.

Kodak Tourist 800 (Eastman Kodak Co., Rochester, N.Y.) \$95 including federal excise tax. Used No. 620 roll film to make 8 pictures each 2½ x 3½ in. Equipped

with Anastar coated f:4.5 lens of 101 mm. focal length. Could be focused from 31/4 ft. to infinity by rotation of front lens cell. Kodak Synchro-Rapid shutter with rated speeds of 1/800, 1/400, 1/200, 1/100, 1/50, 1/25, 1/10, 1/5, 1/2, 1 second, and bulb. Had 3-position selector permitting shutter to be synchronized for electronic flash using class F or class M bulbs. Shutter blades revolve into open and closed positions in turn, instead of opening and closing in usual way by a forward and reverse motion. Had exposure guide on back of camera. Shutter speeds between 1/2 and 1/25 second were approximately proportional but between 1/25 and 1/800 differed considerably from rated speeds. At 1/800, exposure obtained gave an effective exposure of about 1/400 second; at 1/400 second, effective exposure was about 1/200 second or the same as the exposure rated 1/200, which was substantially correct. Quality of lens. good at edge of field, with no change in resolution at f:8. Calibration of focusing scale, satisfactory except at distances of 5 ft. or less. At 5-ft. marking, actual focus was



Voigtlander Baby Bessa



Kodak Tourist 800



Kodak Tourist



Voigtlander Bessa



Voigtlander Rangefinder Bessa II

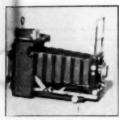
5½ ft. Exposure guide was almost foolproof, except for indoor or extreme conditions of illumination. (The amateur would be less likely to expose incorrectly using the guide than with use of a photoelectric meter.) The direct vision view-finder was awkward in use for a person wearing glasses. Besides, it did not cover the entire field, and the lens mount obscured part of the field of view. The winding knob required considerable force to operate. Mechanically this camera was judged to be well built and sturdy.

Plate and Film-Pack Cameras A. Recommended

Linhof Technika III (Distributed by Peerless Camera Stores, Inc., 138 E. 44 St., New York 17) \$169.50, not including lens and shutter. Uses 4 x 5 in. Graphic-type double cut-film holders. Body of aluminum alloy; approximate size, closed, 7 in. x 7 in. x 4 in. Weight with lens, about 5 lb. Triple extension bellows (extends to 15 in.). Drop bed, revolving back (which also swings, tilts, and can be moved up, down, and sidewise by turning knurled knobs). Direct view wire frame finder with peep sight adjustable for parallax. An exceptionally finely made camera, "aristocrat" of the hand camera field, with all the refinements necessary for the use of the advanced amateur; will do almost any work that can be done by a good view camera but is more adaptable to use for general photography, and more convenient: exhibits better workmanship and finish, too.

B. Intermediate

Century Graphic (Graflex, Inc., Rochester 8, N. Y.) \$109.50, including 1 cut-film holder and federal excise tax. Can be used with plates, cut film, or film pack to make pictures 21/4 x 31/4 in. Camera was fitted with new Graflok back, which makes it possible to remove the spring-actuated ground-glass screen and substitute the new roll holder (see following listing) that uses No. 120 roll film. The camera was equipped with coated Graftex Trioptar f:4.5 anastigmat lens of 103 mm. focal length, of Wollensak make, mounted in removable metal lens board, approximately 2 in. square. Automatic (non-setting) shutter with rated speeds of 1/200, 1/100, 1/50, 1/25, 1/10 second, time, and bulb. Built-in flash synchronization. Camera body made of plastic, with metal bedplate. Bellows approximately double extension for lens supplied. Rising front had





Century Graphic

about ¾ in. of motion; front could also be tilted upward through a small angle. Had an optical finder and one of the frame type; the first-named was adjusted for parallax at distances of 6, 8, and 15 ft. Quality of lens, mediocre; a noticeable amount of astigmatism was present, Marginal definition was materially improved when lens was stopped down to f:8. Shutter speeds were approximately proportional. Camera was well made and all adjustments functioned smoothly.

Roll-Film Holder for Graphic Cameras A. Recommended

"23" Graphic Roll Film Holder (Graflex, Inc., Rochester 8, N.Y.) \$21.75. Model tested fits Century Graphic with Graflok back and made 8 exposures each 21/4 x 31/4 in. on No. 120 roll film. A similar model is available for 12 exposures 21/4 x 21/4 in. on same size film. Either can be adapted for use on models of the Crown and Speed Graphic. To install, the spring back of the camera is removed and the roll-film holder fastened in place by a sliding lock on each side. Models of this holder are also available for 21/4 x 31/4 in. Graftex cameras. Exposures are automatically counted. Construction is of plastic and metal. Workmanship good and performance satisfactory. It is considered important to note that the film, with this holder, is bent backward, through a full 180°, over rollers of about 3/4 in. diameter, as in the old-style (now discontinued) Graflex roll holders, Plaubel Makina roll holders, Hasselblad roll holders, etc. As with those holders, there is reason to believe that, in some cases, if the film is left in the camera for a considerable length of time, under some atmospheric conditions, it may "take a set" over one or both rollers. When this happens, the film does not lie flat when later turned into position for exposure, and an unsharp or partially unsharp negative may result. This defect would be more serious in the 21/4 x 21/4 in. size where the unsharpness could sometimes be near the center of the negative. (In 21/4 x 31/4 in. size the unsharpness would be near the edges where it would be of less importance.)

The Kerosene Burner in the Kitchen Range

Merna M. Monroe, of the Maine Experiment Station at Orono, has prepared a very useful bulletin, a fine instance of studies in home economics considered as an aspect of "domestic engineering," titled "Kerosene Burners in a Wood Cookstove." This will be of great interest to many, especially in rural districts, who have found it convenient to convert their wood ranges to burn kerosene oil and thereby reduce some of the labor of stove-firing and ash removal. Unfortunately this bulletin is now out of print; copies, however, will be readily available through land-grant college libraries and the larger city libraries, or in some cases can be gotten from local libraries through the state library system.

Deep-Fat Fryers

A COMPARATIVELY NEW kitchen appliance has hit the consumers' market, the electric "deep fryer." This is supposed to do away with the fuss and bother of deep frying by the old-fashioned method of using a pan of fat heated on the stove. Potatoes still have to be pared, batters still have to be mixed, and meat still has to be prepared for frying. Of course, the electric fryer has one advantage, that of a thermostatic control which prevents the temperature of the fat from exceeding or falling below certain limits. Some of the fryers can also be used at the table, consequently providing hot fried food from time to time as needed. However, the odor of hot fat, the possible smoke, and the possible splashing of fat would be objectionable.

Two deep fryers, the Marion "400" and the Dormeyer Fri-Well, were tested for safety, dura-

bility, and performance.

Both proved quite safe to use except for two things: (1) the exteriors of both fryers became too hot to touch with the hand, reaching, in some spots, temperatures as high as 200 degrees; (2) the hot fat splashed slightly onto the top of the fryers when the potatoes were added even though the potatoes were dried by toweling and immersed carefully. In view of great danger of fire from ignition of the hot fat, such appliances are not considered fully safe. However, they are considered safer than an open pan for frying. Since the thermostatic controls on both appliances, as well as the appliances themselves, withstood a test of 100 hours' running (the laboratory set-up for the life test is pictured in Figure 1), there seems to be no great likelihood of a dangerous rise in the temperature of the fat sufficient to start a fire. However, if the thermostat should fail, a fryer can reach a temperature high enough to ignite the fat. (The fat in each fryer caught fire when the thermostat was shorted in CR's tests.) During the life test, neither fryer burned out; both are apparently well designed in respect to their heating elements. However, there is nothing to show that the fryers are plugged in, when their thermostat-on indicators are off; there should be a lamp showing when the fryer is connected to the line, so that it will never be left on inadvertently. Neither of the fryers had a separate on-off switch. However, the Dormeyer had an off position on the temperature control knob.

Ease of cleaning, ease of use, and stability of temperature of fat, all of which determine useful performance in the home, were studied. Because of its depth, the *Dormeyer* proved to be difficult to wipe clean after the fat had been heated and allowed to drain through the spigot provided. The *Marion*

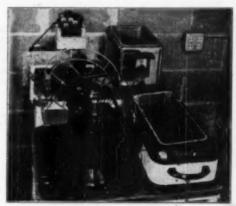


Figure 1 - Life Test of Fryers

The fryers were run alternately, from an automatic switching device, 15 minutes on — 15 minutes off, for 100 hours of "on" time.

had to be heated until the cake of fat loosened from the sides. The container then had to be lifted out and turned upside down. Neither fryer was considered convenient to clean. They were both comparatively easy to use for frying. Since both fryers were fairly small, the temperature of the fat dropped considerably when food was added.

According to Fannie Farmer and other authorities on cookery, the temperature necessary for deepfat frying of the usual foods cooked by this method ranges from about 350 to about 400 degrees. A fryer should be able to maintain temperatures with-

in or near the top of this range.

B. Intermediate

Dormeyer Fri-Well, Model 5800 (Dormeyer Corp., Chi cago 41) Listed price, \$29.95. Rated input, 1350 water. 115-120 volts, a.c. only. Fat capacity, approximately 3 lb. Outside dimensions, 91/2 in. high with lid x 7/1/ in. wide x $14\frac{3}{4}$ in. long. Tank dimensions, 6 in. high x $5\frac{1}{4}$ in. wide x 9 in. long. UL listed, but not so marked on appliance. Chrome plated. Had four feet made of plastic. Brown plastic thermostatic control, marked OFF, 250° to 550°. Temperatures of fat found a good deal lower than settings indicated. Maximum measured temperature of fat, 480°F (temperature range and temperature variation, satisfactory). Indicator (eyes in face above control, difficult to see) glows faintly when fat is heating, goes out when thermostat shuts off current. Brown plastic handles and knob on lid. Metal base. Had "Drain-Away Faucet" for draining fat, and "coldwell" for catching settling food particles. Removable

chrome-plated basket has removable handle. Heating elements on sides completely enclosed. Leakage current (indication of shock hazard), 0.6 ma. (satisfactory, but somewhat more than is desirable). Fryer not easily cleaned. Durability rated good; safety, fairly good.

C. Not Recommended

Marion "400" Deep Fryer (Rutenber Electric Co., Marion, Ind.) Listed price, \$24.95. Rated input, 1600 watts, 115-125 volts, a.c. only. Fat capacity, 3 lb. Outside dimensions, 5½ in. high x 8 in. wide x 16½ in. long. Inside container dimensions, 3¾ in. high x 6½ in. wide x 19 in. long, with handles. Listed by Underwriters'

Laboratories. White porcelain finish. Had four plastic feet. Thermostatic control with black plastic handle, High and Low only (no temperature indications — undesirable). Maximum measured temperature of fat, 320°F (not nearly high enough). Pilot light glows when fat is heating, goes out when thermostat shuts off current. Black plastic handles. Removable black porcelain-finished container (nickel plated on some models), with depressed bottom area, used for frying and storing fat. Tin-coated basket with removable handle. Leakage current, 0.2 ma. (satisfactory). Heating elements on sides, fairly well enclosed for protection against shock. Fryer not easily cleaned. Durability rated good; safety, fairly good.

Corrections and Emendations to Consumers' Research Monthly Bulletins

Whiskeys
Page 14, Col. 2
Straight Bourbon
Aug. '50 Bulletin

Ancient Age (Product of Ancient Age Distilling Co., a Schenley subsidiary). Delete statement "Approximate age, judged about 4 years." Although the indications

of the chemical tests corresponded to an age of about 4 years, the manufacturers, Schenley Industries, have established to our satisfaction that the age of the Ancient Age whiskey was at least 5 years; we believe that their statement may be taken as fully correct. (The chemical tests which determine the age of a whiskey are at best only approximations.)

Refrigerators
Page 11, Col. 1-2
Sept. '50 Bulletin

The refrigerator of the refrigerator

Recommended to B. Intermediate.

After the results of the refrigerator

tests were reported, International Harvester Co. wrote CR that the Frigidrawer in their Model H-74 was so arranged that either of two positions could be used, depending on the season. One was for summer operation and the other for winter. The performance data given in our BULLETIN indicated that the tests had been made with the drawer in the winter position. Upon investigation it was found that there had been no reason to note the drawer position, particularly since there was no permanent indication on it or on the refrigerator itself to show the proper location of the drawer, and no instruction book had been received with the refrigerator. As it happened, the tests reported in the September 1950 BULLETIN were made with the drawer in the winter position. In this position, air circulation was reduced, pull-down time lengthened. and operating costs increased. On receipt of the information from the manufacturer, a new test was run with the drawer in the summer position. The Frigidrawer is a meat tray immediately under the evaporator.

The following table presents results of both tests.

It will be noted that the difference in operating cost, except at 110°F room temperature, is not great, but the percent running time and pull-down time are influenced greatly by the position of the drawer.

Pull-Down Test	Drawer i	 Drawer in mmer Position
Time required to pull down from 110° to 46°F		
Time per cu. it	0.02 111.	 0.50 III.
Operating Cost		
At 80° room tempera-		
ture, per month	\$1.09	 \$0.99
At 90° room tempera-		
ture, per month	1.46	 1.32
per cu. ft	19	 .17
running time	36%	 25%
At 110° room tempera-		
ture, per month	\$3.00	 \$2.18
running time		 50.2%

The manufacturer in his correspondence with CR recommends that the winter position be used only when room temperatures average below 75° and states that use of the 2-position Frigidrawer permits the user to maintain a lower temperature in the freezing compartment (evaporator) during the winter than would be possible with the drawer in the summer position, unless the user were to run the risk of having temperatures go below freezing in the food storage space. This information did not appear in the instruction book; in fact, in one piece of I.H.C. advertising literature, the summerwinter positions of the drawer are referred to as a means of controlling humidity in the box.

The International Harvester Model H-74 was considerably less economical in operation than the I.H.C. 1949 Model 8HI. In respect to economy of operation, the present model would fall into the low B group of the refrigerators reported in CR's September 1950 BULLETIN.

Children's Shoes

THE wearing quality of children's shoes is a matter of great concern to many families. There was a time when soles seemed to wear out overnight. New types of soles and treatments for soles, however, have improved the wearing quality to such an extent that one Midwest shoe dealer reported not long ago that his customers chiefly complained that the uppers broke down before the soles wore out. In this connection it is important to bear in mind that children's feet change in size in from one to three months. It is possible, therefore, that in some cases it is not necessary for young children's shoes to last longer than a month or two, however hard this may be on the family budget.

On the question of stiff-sole shoes versus bare feet, several competent authorities believe that, except for the strictly normal foot (whether or not a foot is normal can only be determined by a physician with orthopedic training), most children will be better off to wear shoes the year round. As one competent physician pointed out, three months of going barefoot in the summer may undo entirely all that a child has gained in correction of flat feet and knock knees in the previous nine months of wearing shoes with properly chosen supports. No child should wear a corrective shoe unless it has been prescribed for him by an orthopedic physician. It is extremely ill-advised to buy corrective shoes for children on the basis of a shoe salesman's prescription.

Competent fitting of children's shoes is particularly important for good foot health. On the other hand, avoid by all means the use of shoe-fitting X-ray fluoroscopes, which are a potential source of hazard from the penetrating X-radiation. Use of these X-ray machines is considered particularly dangerous for children.

The employment of many new materials in the making of shoes, including those for waterproofing footwear, has been the cause of numerous skin troubles of the feet. As a matter of fact, foot eruptions are the third most common skin disease, according to two Midwestern dermatologists, who have pointed out that children frequently kick off their shoes because of some irritating factor present. The use of rubber and adhesives, bonded, laminated, coated and impregnated fabrics and papers have contributed to the increase in skin irritations of the feet.

Proper design is the first consideration in selecting a pair of shoes; quality of construction and durability come second. Ill-fitting and poorly-designed shoes worn in childhood may cause foot ills for the rest of a person's life. The principles of goodfitting shoes are generally agreed to be: 1. The inside edge should lie along a straight line.

The toe should be wide enough to prevent squeezing the toes and high enough to permit ample room, completely free from pressure.

3. The heel should fit snugly, but from the ball of the foot to the toe the shoe should fit loosely.

4. Heels should be low and broad.

In general, it is wise to make certain that there is space equal to the width of an adult thumb, or about one-half inch, from the tip of the big toe to the end of the shoe, when the child is standing with his full weight on his feet. Special arch supports, "cookies," Thomas heels, and other orthopedic features are not only unnecessary but undesirable in a shoe purchased for a normal foot. Corrective features should be used only on prescription by an orthopedic physician.

The wearing quality of a shoe is largely determined by the quality of its component parts. Topgrain upper leather is the most desirable type because it has inherently good resistance to scuffing. Insoles of good quality leather add considerably to the wear life of the sole, but customarily granulated cork with a binder of some sort is used. As CR has pointed out in previous studies, there is a disadvantage in the use of some binders because they tend to soften with pressure and heat, and flow or shift out of shape, making the bottom of the shoe bumpy and uncomfortable.

In CR's current study, 22 brands of children's shoes were subjected to a wide variety of tests and were examined by a skilled orthopedic physician for design. The test methods included a complete dissection of the shoes and a lengthy series of measurements and observations on the component parts, The soles were abraded on a Wallace (National Bureau of Standards) leather abrasion machine, Resilience of the soles was tested by a falling weight method previously used in CR's tests. Moisture absorption, tear resistance, stitch tear, breaking strength, and elongation of the various materials were measured. The final ratings with respect to wearing quality were based on the properties of the upper and sole leathers (quality of sole evaluated on relative abrasion resistance to 50% of its thickness) and various construction details.

In view of the importance of proper design, no brand was given a high rating that was unsatisfactory in this respect. When brands which were not recommended on the basis of examination and wear tests were acceptable from an orthopedic standpoint, this fact has been noted in the listings. Parents who are not primarily concerned with wearing qualities, perhaps because their children are not hard on shoes or outgrow them rapidly, may wish

to take this point into account using CR's ratings

as a basis for making their purchases.

The prices given are those paid for the shoes at time of purchase in the fall of 1950. Present information is that nearly all prices have increased or will increase in the near future. Ratings are cr51.

A. Recommended

Child Life (Herbst Shoe Mfg. Co., Milwaukee 10) \$6.95. Brown oxfords with reinforced toes and rubber heels. Welt construction (preferable to stitchdown construction). Over-all orthopedic rating, good. Uppers, chrome-tanned leather. Counters, top-grain leather. Toe boxing, cloth impregnated with plastic. Insole filler, cork and "dry" binder. Construction, above average in quality. Quality of sole, very good. Shank, steel. 2

Classmate True Posture (Ideal Shoe Mfg. Co., Milwaukee 12) \$5.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, chrome-tanned, top-grain leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and "dry" binder. Leather, top grain (best in group). Construction, below average in quality. Quality of sole, very good. Shank, steel. 2

Little Yankees (Sam Smith Shoe Corp., Newmarket, N.H.) \$5.95. Brown oxfords with reinforced toes and rubber Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, above average in quality. Quality of sole, good. Shank, steel. 2

Sundial Bonnie Laddie for Boys (Sundial Shoe Co., Div. International Shoe Co., Manchester, N. H.) \$6.50. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, chrome-tanned, top-grain leather. Counters, top-grain leather. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, average. Quality of sole, below average. Shank, steel.

Kali-sten-iks (The Gilbert Shoe Co., Thiensville, Wis.) \$7.50. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, Uppers, top-grain leather, vegetable tanned. Counters, leather. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, very good. Sole, somewhat above average. No

shank piece. Simplex Flex-Eze (Simplex Shoe Mfg. Co., Milwaukee) \$7.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating,

good. Uppers, chrome-tanned, top-grain leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, about average in quality. Quality of sole, somewhat above average. Shank, steel.

B. Intermediate

Educator (Distributed by G. R. Kinney Co., Inc., 2 Park Ave., New York City) \$4.75. Brown moccasin oxfords with rubber heels and Panolene soles. Welt construction. Over-all orthopedic rating, fair. Uppers, vegetable-tanned split leather. Counters, top-grain leather.

Toe boxing, thin impregnated felt. Insole filler, cork and tacky binder. Quality of construction, about average. Quality of sole, above average. Shank, wood. 1

Buster Brown (Brown Shoe Co., St. Louis) \$6.50. Brown oxfords with reinforced toes, rubber heels, and Avonite synthetic soles. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, above average. Quality of sole, about average. Shank, wood.

Official Girl Scout Shoe, Style 28 (Curtis-Stephens-Embry Co., Reading, Pa.) \$6.50. Brown moccasin oxfords, with rubber heels and Neolite soles. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impreg-nated with plastic. Insole filler, cork and dry binder. Leather in uppers of very good quality, but construction below average. Quality of sole, below average. Shank, wood.

Poll-Parrot Pre-Tested (Friedman-Shelby Div., International Shoe Co., St. Louis 3) \$5.95. Brown oxfords with reinforced toes and rubber heels. Stitchdown construction (considered less desirable than the welt Over-all orthopedic rating, good. chrome-tanned split leather. Counters, top-grain leather. Toe boxing, impregnated felt. Insole filler, "plastic wood." Uppers, poorest quality of shoes tested, but quality of construction of shoe above average. Quality of sole, good. Shank, wood.

Weather-Bird (Peters, Division of International Shoe Co., St. Louis 3) \$5.98. Brown oxfords with rubber heels. Stitchdown construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, topgrain leather. Toe boxing, cloth impregnated with plastic. Insole filler, "plastic wood." Construction, above average. Quality of sole, very good. Shank, wood.

Coward (The Coward Shoe, Empire State Bldg., N.Y.C.) \$7.45. Brown oxfords with reinforced toes and leather heels. Welt construction. Over-all orthoredic rating, good. Uppers, chrome-tanned, top-grain leather. Counters, top-grain leather. Toe boxing, cloth impregnated with plastic. Insole filler, cork and tacky binder. Construction, best of any brand tested. Quality of sole, poorest of shoes tested. Shank, steel and cardboard. 3

Health Spot (Health Spot Shoe Co., Oconomowoc, Wis.) \$7.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, fair. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder at the ball; sawdust and hard binder in the shank and heel area. Construction, very good. Quality of sole, below average. Shank, steel. 3

Proper-Bill (O'Donnell Shoe Corp., Humbolt, Tenn.) \$8.45. Brown oxfords with leather heels. Welt construction. Over-all orthopedic rating, fair. chrome-tanned, top-grain leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, below average in quality. Quality of sole, good. Shank, steel.

C. Not Recommended

Storybook Cushion Foundation Shoes (Storybook Shoe Co., Division of General Shoe Corp., Nashville 1, Tenn.) \$4.95. Brown oxfords with reinforced toes and rubber heels. Stitchdown construction. Over-all orthopedic rating, good. Uppers, chrome-tanned, top-grain leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, none. Quality of construction, poor. Quality of sole, below average. Shank, wood. 1

Thom McAn (Distributed by Thom McAn Shoe Co. N.Y.C.) \$4.49. Brown oxfords with moccasin toes, rubber heels, and Neolite soles. Welt construction. Over-all orthopedic rating, fair. Uppers, split leather, vegetable tanned. Counters, fiber. Toe boxing, rubberized fabric. Insole filler, cork and dry binder. Quality of construction, below average. Quality of sole, below average. No shank piece.

Acrobat (Acrobat Shoe Co., Division of General Shoe Corp., Nashville 1, Tenn.) \$5.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Quality of construction, poor. Quality of sole, very good. Shank, steel.

Lazy Bones Junior (The Lazy-Bones Shoemakers, St. Louis 3) \$5.95. Brown oxfords with rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, impregnated cloth. Insole filler, cork and dry binder. Quality of construction, poor. Quality of sole, below average. No shank piece.

2 Official Girl Scout Shoe (Brown Shoe Co.) \$6.95. Brown

oxfords with reinforced toes, rubber heels, and Avonite soles. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather of poor quality. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and tacky binder. Quality of construction, average. Quality of sole, below average. Shank, wood.

Stride Rite (Green Shoe Mfg. Co., Boston) \$6.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, chrome retan leather. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, cork and dry binder. Construction, above average. Quality of sole, below average. Shank, steel.

Dr. Posner's Scientific Shoes (Distributed by Dr. A. Posner Shoes, Inc., New York 1) \$7.95. Brown oxfords with reinforced toes and rubber heels. Welt construction. Over-all orthopedic rating, good. Uppers, split leather, vegetable tanned. Counters, top-grain leather. Toe boxing, cloth impregnated with plastic. Insole filler, cork and tacky binder. Quality of construction, average. Quality of sole, below average. Shank, steel and cardboard.

Pied Piper (Pied Piper Shoe Co., Wausau, Wis.) \$7.95. Brown moccasin oxfords with rubber heels. Welt construction. Over-all o hopedic rating, good. Uppers, split leather, vegetable tanned. Counters, fiber. Toe boxing, cloth impregnated with plastic. Insole filler, none. Quality of construction, poor. Quality of sole, good. Shank, steel.

Limitations of Propylene Glycol Anti-Freeze

A PERMANENT-TYPE ANTI-FREEZE, which consists of propylene glycol, with rust inhibitor added, in most cases, has been offered by automotive supply dealers. As the specific gravity of concentrated propylene glycol differs by only four percent, or one part in 25, from that of water, the problem of measuring the freezing limit of the solution by use of the customary hydrometer for measuring density of a liquid is not an easy one. The specific gravity of a solution of propylene glycol is 1.034 when made up in dilution for protection of the radiator to —10°F and 1.021 for protection to +15°F. Thus there is a difference of

only a little more than one percent between the specific gravity of a solution protecting to —10° and that of one protecting only to +15°, a range too small to be measured reliably by a relatively insensitive hydrometer of the sort used by filling stations and consumers. With the Sears-Roebuck's Allstate anti-freeze tester, an error in reading of only 1/16 inch on the float (No. 27753) will change the freezing point read on the scale provided for propylene glycol by approximately 5°F, and hydrometer floats are hard to read, at best, because of cloudiness and scum in the liquid, and droplets adhering to the walls of the outer hydrometer tube.

Abridged Cumulative Index of Previous 1951 Consumers' Research Bulletins

Month and Page
Automobiles driving hazards, winterJan., 26 1951, preliminary reports†Jan., 17-19 oil, used crankcase, potential
fre hazard
Barbiturate intoxication, chronic, Jan., 3 health problem. Jan., 3 Bicycles, care and eafe operation. Jan., 14 Blankets, abest, foot warmer, electric; Jan., 29-21
Cakes, grocery storeJan., 3
Clothing men's, cotton, price increase: Jan., 3 pajamas, men's, cotton' Jan., 24-25

Month and Page Corrections and emendations?Jan., 25
Dryers, clothes†Jan., 22-23
Editorial
Floor coverings, rayon tending to replace wool. Jan., 4 Food, high cost. Jan., 4
Label directions, need to heed Jun., 3-4
Markers, plant, aluminum; Jan., 38 Mixers, food, electric; Jan., 5-11 Motion pictures; mark issue
Oil, fuel, for oil burnersJan., 11
Perfume, heavy odors offensiveJan., 29

ermanent waves, home? Jan., 12-14 honograph records? each issue chemical specialties for cleaning? Jan., 4, 29
anges, electric, broller tests†Jan., 15-16 efrigerator, Astral (final report)†Jan., 21 efrigerators, gas, potential hazard.Jan., 16
hoe holder for polishing†Jan., 30
omatoes and tomato products, canned, short supply
ool shortage reportsJan., 3
ndicates that listings of names or brands are

Off the Editor's Chest

(Continued from page 2)

for information about our manner and method of functioning. The reply vouchsafed the information that the material in question had been prepared by a professor at Columbia University. We have the highest respect for university professors, but this particular job must have been something dashed off before breakfast, and did not receive the proper amount of scholarly attention. What puzzled us, too, was the extreme reticence about his name and qualifications, though the advertising profession has been noted for its skill in featuring and giving publicity to names, whether of products or of people.

Some six months later the Committee on Consumer Relations in Advertising advised us that a revision of the incorrect pamphlet was being undertaken, and asked for our corrections and additions to the section dealing with Consumers' Research, Inc. We took advantage of the opportunity to send a brief summary of the nature and scope of CR's work. Some three months later when we inquired what progress had been made, we received a curt reply that no revision had been made and that it was quite possible that the revised edition might make no mention of Consumers' Research.

Advertising men quite commonly do not feel any obligation or duty to correct erroneous information which they have sponsored and circulated. We were reminded of this characteristic in the recent uproar of outraged parents who resented being pictured by a section of the television trade in the public press as neglectful of their children's best interests, because they denied them the "intellectual vitamins" to be had in television programs.

There is a certain marked lack of moral and civic responsibility illustrated by these small incidents that needs to be corrected by advertising men if advertising is to merit consumers' confidence. There is one particular section of the advertising business that has in recent years taken upon itself the task of defending private enterprise and of selling the concept of its importance to the American people. Manufacturers whose products rank high with consumers on a performance basis may find that along these lines their own efforts, not filtered through an advertising agency's type of brains, will better serve the purpose of enlisting renewed support for the economic system that has made the American consumer the envy of the world. As E. B. White, then on The New Yorker, once remarked, about another public relations program put on by the advertising profession, people "don't want any advertising men doing it. They feel you aren't the type."

Tips on Cleaning Rugs and Carpets

VACUUM CLEAN rugs and carpets once or twice a week, daily if floor coverings are subjected to heavy traffic. Some vacuum cleaners are equipped with special-purpose tools that are made of aluminum. When aluminum comes in contact with a rug or carpet, it may leave a smudge, and continual smudging will gradually dull or gray the color. To a lesser degree, this same difficulty would occur with tools of other materials, including copper and such alloys as duralumin, stainless steel, and monel metal.

In addition to regular vacuum cleaning, experts recommend an annual or semi-annual professional cleaning of a rug. The professional cleaning process gives it a fresher, brighter appearance. Some studies indicate that such care greatly increases the wear life.

Washing or shampooing a rug at home is a difficult, tedious job if properly done. It may have an adverse effect on the life and appearance of a floor covering if not carried out properly. Many preparations sold for the special purpose cannot be completely removed at the end of the process, and the residue remaining in the rug will in some cases cause rapid resoiling. It may trap dust particles and check their removal by the vacuum cleaner, may often damage color and fabric.

 From Tips on Cleaning Floor Coverings, available free from National Institute of Rug Cleaning, Inc., Silver Societa, Md

NGS of MOTION P

HIS section aims to give critical consumers a THIS section aims to give critical digest of opinion from a wide range of motion digest of opinion from a wide range of motion picture trade picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are: In E SOUTCES Of the Fevicews are:

Ba Office, Chicago Daily Tribune, Cas. Daily News (N.Y.), The Enhibitor,
Harrison's Reports, Motion Picture Herald, National Legion of Decency List,
Newsweek, New York Hendel Tribune, New York Triums, Parents' Magasine,
Release of the D.A.R. Preview Committee, Reviews and Raisings by the Procetant Motion Picture Council, Successful Forming, Time, Times Herald
(Washington, D.C.), Variety (weakly), Whithy Guide to Stiteded Motion
Pictures (National Board of Review of Motion Pictures, Inc.).

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), or C (not recommended) on its entertainment

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

kist—founded on historical incident mst—melodrama mus—musical

may-musical
may-mystery
now-dramatization of a novel
rown-romance
now-social-problem drama
frum-travelogue
now-decling with the lives of
people in wartime

Descriptive abbreviatio	ns are as follows:
adr-adventure	kist-founded on historic
biog-biography	mei-melodrama
e-in color (Technicolor, Cinecolor,	mus-musical
Trucolor, Magnacolor, Vitacolor, etc.)	mys-mystery
ear—cartoon	nov-dramatization of a
com—comedy	romromance
cri-crime and capture of criminals	soc social-problem dram
dse-documentary	trar-travelogue
dr—drama	war-dealing with the liv
fan-fantasy	people in wartime

			me) western
	В	C	
	2	5	Across the Badlands mus-wes AYC
6	8	1	All About Evedr A
	11	4	American Guerrilla in the Philippineswar-dr-c A
	1	3	Arizona Territory wes AYC
	_	4	Arshin Takes a Wife
	2	1	At War with the Army A
	3	1	Bandit Queenmel A
1	3	-	Beaver Valleydoc-c AYC
	5	5	Between Midnight and Dawn cri-mel A
	5	1	Beyond the Purple Hills mus-wes-c AYC
	4	3	Big Timbermel AYC
,	6	3	Bitter Ricedr A
1	4	7	Black Rose, The
	3	1	Blazing Sun, The wes-c AYC
,	-	3	Blood and Firedr A
0	4	1	Blues Busters Mus-com A
	-	5	Bomba and the Hidden City adv AYC
,	7	2	Bomba and the Lost Volcanomel AYC
	-	3	Border Outlaws
	1	3	Border Rangerswes AYC
		6	Border Treasure wes AYC
	5	11	Born to be Baddr A
	3	2	Born Yesterday A
	1	2	Boys in Brown
	6	1	Branded wes-c AYC
	5	12	Breaking Point, Thedr A
	6	4	Breakthrough wur-dr A
	1	6	Bullet for Stefanodr A
	4	5	Bunco Squad cri-mel A

Cariboo Trail, The wes-c AYC

A	В	C	
-	1	3	Cheat, The dr A Cherokee Uprising wes AYC
	-	4	Cherokee Uprisingwes AYC
-	5	6	Convicteddr A
-	1	3	Copper Canyon
_	2	2	Counterapy Meets
1	5	1	Scotland Yard
	2	4	Covered Wagon Raid
3	7	3	Cyrano de Berderac de A
-	4	2	Dallas wes-c A Dancing Years, The mus-com-c A Dark City mys-mel A Dear Mr. Prohack com A
	3	3	Dancing Years, The mus-com-c A
Andrew 1	7	10	Dark Citymys-mel A
	5	2	Death of a Dream
-	9	7	Deporteddr A
-	3	5	Deported
	12	2	Destination Moondr-c AYC
_	6	4	Dial 1119
_	1	3	Difficult Years
	5	1	Double Crossbones mus-com-c AYC
_	5	14	Edge of Doomdr A
-	2	1	Ellen
-	3	5	Emergency Wedding
-	11	1	Experiment Alcatraz cri-mel A Eye Witness, The mys A
1	11	4	Fancy Pantsmus-com AYC
2	9	2	Farewell to Yesterday propaganda-doc A
-	-	3	Farewell to Yesterdaypropagasda-doc A Fast on the Drawwes AYC
M-66.	2	4	Federal Man cri-mel A Film Without a Name com A Fireball, The mel AYC Flame and the Arrow, The dr-c A Flesh Will Surrender dr A
	2 7	4	Film Without a Name
1	9	3	Flame and the Arrow. The dr-c A
-	3	5	Flesh Will Surrender dr A
-	7	3	
-	1 4	3	For Them That Trespass
_	3	6	Frenchia mer-c 4
-	3	2	Frightened City mel A Frisco Tornado wes AYC Frontier Outcoat
-	5	4	Frisco Tornadowes AYC
-	1	5	Frontier Outpost
1	7	11	Furies, The
_	3	1	
_	_	4	Girl in a Million, A
3	10	4	Glass Menagerie, Thedr A
-	7		Goldbergs, The
20000	3	1	Grandma Moses
1	4	-	General and the Senorita, The dr A Girl in a Million, A com A Glass Menagerie, The dr A Goldbergs, The com AYC Golden Salamander cri-mel A Grandma Moses doc AYC Great Missouri Raid, The wes-c A Gun Crazy cri-mel AYC Gunfire mel A
-	1	3	Gun Crazy cri-mel AYC
-	3	1	Gunfire mel A Gunslingers mel A Gunslingers wes AYC Halls of Montesuma wes-dr-c A Happiest Days of Your Life, Theom A Harriet Craigdr A
	1	2	Gunslingerswes AYC
1	6	1 2	Hanniest Days of Your Life The
10000	8	5	Harriet Craig de A
2	5	-	Harvey fan A Heart and Soul dr A He's a Cockeyed Wonder com A
-	7	-	Heart and Souldr A
-	2	6	He's a Cockeyed Wonder
_	11	4	High Lonesome wes-c AYC
_	7	3	Highway 301
-	1	4	Hi-Jacked cri-mel A
-	5	1	Hills of Oklahoma mus-wes AYC
_	1	5	Hit Parade of 1951 mas-com A Hoboes in Paradise fon A
-	4	-	Holiday Rhythm mus-com A
-	5	-	Holiday Rhythm mus-com A Holy Year at the Vatican doc AYC Holy Year, 1950 doc AYC
2000	7	2	Holy Year, 1950doc AYC
-	2	2	Hot Rod mel AYC

A	B	C		A	В	C	
-	4	6	I Killed Geronimo wes AYC I Shot Billy the Kid wes AYC	-	2	2	Return of Jesse James, The wes AYC
-	2	7	I Shot Billy the Kid wes AYC	_	8	5	Right Crossdr AYC
_	2	7	If This Be Sin dr A	3		2	Rio Grande mus-mel AYC
-	1	2	Ignace	-	2	.3	Rio Grande Patrolwes AYC
1	12	4	I'll Get By mus-com-c AYC	-	7	3	Rocky Mountainmel AYC
-	- 4	3	Indian Territory wes AYC	-	3	5	Rookie Fireman
-	2	2	Shot Billy the Kid wes AFC	-	3	1	Rio Grande mus-mei AYC Rio Grande Patrol aves AYC Rocky Mountain mei AYC Rockie Fireman mei A Rustlers on Horseback wes AYC
1	12	-	Jackpot, The	1	9	4	
-	5	3	Jungie Stampede	-	5	2	Savage Horde, Thewes AYC
		9	Vantages FIA The mel AVC	-	3		Scarf, The
MIN. OF	1	3	Kangaroo Kid, The mel AYC	-	-	3	Second Face, Thedr A
-	3	6	Kansas Kaiders	-	3	3	Secrets of Naturedoc A
-	2	4	New York The	-	6	2	September Affairdr A
-	7	2	Firm ada AVC	1	2	1	Seven Days to Noonwar-mel A
5	12		Kind Solomon's Mines adv.c AVC	-	9	6	Secrets of Nature doc A September Affair dr A Seven Days to Noon war-mel A 711 Ocean Drive cri-mel A
9	6	6	Kansas Raiders	1	4	6 2	Shakedown
	U		icies i officiality Gooday Committee in		7	4	Shakedown cri-mel A Short Grass wes AYC Showdown, The wes A Silk Noose, The cri-mel A
	5	7	Lady Without Passport, Adr A	_		3	Silk Noose The
-	2	2	T 1 A Malan		2	1	Silk Noose, The cri-mel A Silver Raiders wes AYC Sinners, The dr A Snow Dog mel AYC So Long at the Fair mys-mel A Sound of Fury, The cri-dr A Southside 1-1000 cri-mel AY Souvenir dr A State Secret mys-mel AYC Stella mys-mel AYC Stella
1	8	1	Last Holiday dr A Last of the Buccaneers adv-c AYC Law of the Panhandle wes AYC Let's Dance mus-com-c AY Life of Her Own, A dr A Lonely Hearts Bandits mel A Lost People. The ward r A		4	3	Sinners The
-	5	6	Last of the Buccaneers adv-c AYC		5	2	Snow Dod mel AVC
	-	3	Law of the Panhandle wes AYC	_	5	_	So Long at the Fair mys-mel 4
-	9	8	Let's Dance mus-com-c AY	1	2	5	Sound of Fury. The
-	7	7	Life of Her Own, A dr A	1	7	3	Southside 1-1000 cri-mel AV
-	2	6	Lonely Hearts Banditsmel A	-	1	3	Souvenirdr A
-	2	4	Lost People, The war-dr A	2	1.3	-	State Secret mys-mel AVC
					5	6	Stella
-	4	3	Mad Queen, The hist-dr A	1	1	1	Storm Warning cri-mel A
-	6	2	Mad Wednesday (originally set for		2	4	Streets of Ghost Town mus-wes AYC
			Mad Queen, The hist-dr A Mad Wednesday (originally set for release in 1947 as The Sin of Harold Diddlebock)	2	11	2	Stella
			Harold Diddlebock)	-	5	3	Sun Sets at Dawn, Thecri-dr A
	7	3	Madness of the Heartdr A		8	1	Sunset in the West mus-wes-c AYC
2	3	-	Harold Diddlebock) com A Madness of the Heart dr A Magnificent Yankee, The biog AYC Marriage of Figaro mus-dr A Massacre Hill wes A Milkman, The mus-com AYC Miniver Story, The dr A Missourians, The wes A Mister 886 dr A Mr. Music mus-com A Mrs. O'Malley and Mr. Malone com A Mudlark, The hist-dr AYC Mulatto, The dr A My Blue Heaven mus-com-c A My Widow and I com A Mystery Submarine war-mel AYC	-	3	6	Sunset in the West mus-wes-c AYC Surrender wes A Sylvie and the Phantom fan A
-	3	3	Marriage of Figaromus-dr A	100000	3	2	Sylvie and the Phantomfan A
-	1	2	Massacre Hill				
-	- 8	2	Milkman, Themus-com AYC	-	2	4	Taming of Dorothy, The
-	4	11	Miniver Story, Thear A	1	11	3	Tea for Two mus-com-c A
	4	-	Missourians, The	-	-	4	Texan Meets Calamity Jane, The
2	10	-	Mister 880dr A				The wes-c AYC
1		2	Mr. Music	-	1	3	Third Time Lucky
	7	1	Mudlark The	-	8	3	Three Husbandsdr A
	1	2	Mulatto The	1	12	2	Three Little Words mus-com-c AYC
1 4	8	6	My Blue Heaven	1	11	2	Third Time Lucky mel A Three Husbands dr A Three Little Words mus-come AYC Three Secrets dr A Tender Ever
1	4	4	My Widow and I com A	-	5	10	Timber Fury mel AYC To Please a Lady dr A Toast of New Orleans, The mus-come AYC Tougher They Come, The mel-c A
1	2	4	Mystery Submarine mar-mel AYC	1	9	4	Toget of New Orleans The way of A
1	-		mystery businessessessessessessessessessessessessess		2	3	Tougher They Come The
-	6	7	Never a Dull Moment	-	4	5	Train to Tombstone wes A
2	9	5	No Way Out soc-mel A		1	2	Train to Tombstone wes A Treasured Earth dr A Trial Without Jury cri-mel A Trigger, Jr. mus-wes-c AYC Trio. dr A Triple Trouble com A Tripli hist-dr-c A Trwo Flags West mel AYC Two Orphans dr A Two Weeks With Love mus-com-c AYC
1-	2	2	Noah's Ark	-	î	6	Trial Without Jury
1_	5	1	North of the Great Divide wes-c AYC	-	Š	2	Trioder Jr muchuse AVC
2				3	14		Trio de 4
- Commen	_	3	O Sole Miomus-dr A		1	3	Triple Trouble com 4
0.1	5	-	Of Men and Musicmus-doc AYC	1	8	4	Tripoli kist-dr-c A
-	3	3	Old Frontier, The		9	2	Two Flags West mel AVC
r)ann	3	6	On the Isle of Samoa	10000	-	6	Two Orphans dr A
Size-	3	4	Once a Thief	-	12	3	Two Weeks With Love mus-com-c AYC
-	1	2	Once a Thief. mel A One Too Many dr A				75.4
-	-	3	Operation Xdr A	-	4	-	Under Mexicali Stars wes AYC
-	1	4	Original Sin, Themus-fan A		5	6	Undercover Girl cri-mel A
-	2	5	Orpheusfan A	-	2	3	Underworld Story, The mys-mel A
-	2	3	Operation X		11	5	Undercover Girl
-	5	10	Outragedr A			-	
5		*	Pancho Villa Returnswes AYC		2	5	Vendetta
-	-	4	Paner Callows A	_	1	4	Victors and the Vanguished. The war-dr A
1	8	3	Pagis 1900	-	3	4	Vigilante Hideoutwes AYC
-	5	5	Paris Waltz. The				and are
	13	4	Petty Girl. The	_	6	8	Walk Softly, Strander
	13	4	Pigmy Island mel AVC	-	4	-	Walk Softly, Stranger
-	2	6	Pink String and Sealing Way	-	4	3	Ways of Love
-	9	2	Prelude to Fame mus-de A		6	3	West Point Story, The
_	9	Ā	Pancho Villa Keturns see AYC Paper Gallows, A	-	2	4	When You're Smiling mus-com AVC
-	1	4 7	Prisoners in Petticoats cri-mel A	in the last	1	9	Where Danger Lives mys-mel 4
				-	10	2	Where the Sidewalk Ends cri-mel A
-	4	2	Queen of Spades, The dr A	-	9	4	Watch the Birdle com AYC Ways of Love dr A West Point Story, The mus-com AYC Where Panigr Lives mys-mel A Where the Sidewalk Ends cri-mel A World Youth Festival doc-c A Wyoming Mail wes-c AY
				-	1	2	World Youth Festival
-	4	-	Raiders of Tomahawk Creek mus-wes AYC	-	7	3	Wyoming Mail wes-c AV
-	-	3	Redhead and the Cowboy, The wes A				
-	5	2	Redwood Forest Trailmus-wes AYC	-000	2	3	You Can't Fool an Irishman com AYC

The Consumers' Observation Post

(Continued from page 4)

drapery and upholstery materials, and in a number of other uses. Its name is dynel, and it is manufactured by Carbide & Carbon Chemicals division of Union Carbide & Carbon Corp. from two basically inexpensive chemicals, vinyl chloride and acrylonitrile. The advantages claimed for the new fiber are that it is shrink resistant, warm, mildew-proof, mothproof, and resistant to chemicals. Only small quantities will be marketed at first. We shall be glad to receive comments from subscribers on their experiences with and reactions to the new product.

COMMERCIALLY MADE ICE CREAM is not the simple recipe calling for sweetened and flavored cream with or without a custard base that was characteristic of the homemade variety. The ingredients customarily used and the processes by which they are produced are briefly described in recent hearings on standards of identity called by the Federal Security Administrator in accordance with provisions of the Federal Food, Drug, and Cosmetic Act. Noting that there has been a tendency in recent years to use increasing amounts of non-fat milk solids in commercial mixes, the process for preparing one type is described as coagulating the casein of skim milk by the action of an acid, usually hydrochloric. Next this casein is separated and treated with a solution of soda or other alkali to restore it "to something like its natural condition." Then the resulting product is dried. It sounds much more like directions for making a brass polish or adhesive than something that one would want to put in one's stomach or feed to children.

Chock-full of practical information for you

Whether it be an electrical refrigerator, a television set, a pair of nylon hose or children's shoes, or just a cake of toilet soap, you will find that consulting CR's ratings is helpful and money-saving. CR's tests, which are carefully worked out by experts from the best available knowledge of testing procedures in particular fields, enable you to buy on the basis of facts — not sales claims. Each month Consumers's Research Bulletin presents by brand name the results of tests on a wide variety of products in which the consumer is interested, as well as practical advice on what to look for in general when making a purchase.

In addition, the Annual Cumulative Bulletin, which summarizes a large section of CR's previous findings in many fields and presents new information in some cases, is issued once a year, usually in September. It is an "extra," not included in a subscription, but available to individual subscribers, for personal use, at a special rate.

Why not start today to put your purchasing on a practical, factual basis? You will find subscription rates and a convenient order form on page 30.



SPECIAL FINISHING PREPARATIONS for treating women's hosiery to prevent snags and runs have appeared on the market from time to time. Some years ago the National Bureau of Standards reported on its tests of an aluminum preparation for treating silk hose. (Aluminum salts have been used for years as a finishing material by hosiery manufacturers.) It was the Bureau's conclusion that the use of such aluminum preparations would not prevent runs, but would make the hose water-repellent and hence resistant to spotting. Recently a preparation containing an aluminum salt has been marketed by Endure (6813 Lexington Ave., Hollywood 38), \$1 per oz. Another product for treating nylon hose at home is Nylife (Tele-Cide Chemical Corp., Brooklyn, N.Y.), \$1 for 4 oz. Chemical analysis indicated that this was a solution of about 3 percent polystyrene (a synthetic resin) in carbon tetrachloride. Directions call for application with an atomizer, applicator, or soft cloth to dry, washed hose. Since carbon tetrachloride is very poisonous to breathe, Nylife, if used at all, should be applied in a very well-ventilated room or, preferably, out of doors. In CR's study, the laboratory technician who worked with it was sickened by the fumes, although the laboratory room was large and well ventilated. In a check of three brands of hose for comparative snag resistance, it was found that stockings treated with Nylife averaged less than one snag per square inch when tested by the DuPont Sandpaper Method, whereas the same brands of hose untreated averaged over five snags per square inch. The product evidently has some snag-preventive value, but no doubt women would be better pleased to have the manufacturer apply such a snag-resistant finish to nylon hosiery in the factory where it can be handled much more effectively and far more safely than in the home.

NEWLY AVAILABLE OR RECENTLY TESTED:

Rip-a-Seam (Lawaco Co., Janesville, Wis.; purchased from Abraham & Straus, Brooklyn 1, N.Y.), 98c. A needle-shaped cutter, inserted in place of the needle in a sewing machine, which is designed to sever the thread of a seam, but not the fabric. Unfortunately the device does not always cut the thread without damage to the fabric, and the manufacturer wisely recommends that it be tried first on a sample of the fabric, if it is sheer, or closely woven, to ascertain whether the weave is particularly susceptible to the cutting action of the ripper. For an occasional home job of ripping out a seam, it would appear that the possibility of damage to the material of a garment from the use of this device considerably outweighs any convenience or saving of time afforded. The safer but slower method of using a safety razor blade or pulling a thread will be more satisfactory in most cases, we believe.

Consumers' Research, Inc. Washington, N. J.

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DHONOGRAPHS BYWAITER GRUENING OF RECORDS

Please Note: In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended. Although nearly all new releases of serious music are heard, space narrows comment, generally, to items which merit high ratings.

Bach: The Well-Tempered Clavier — Book I. Preludes and Fugues Nos. 9 to 16. Wanda Landowska (harpsichord). RCA Victor LP 1107. \$5.45. The follow-up on LP 1017 which offered the first 8 in this menumental work, frequently regarded as the foundation of all keyboard music. Like its predecessor, excellent recording and authoritative, thoroughly satisfactory performance.

Interpretation AA

Fidelity of Recording AA

Bernstein: The Age of Anxiety (Symphony No. 2 for Piano and Orchestra). Philharmonic-Symphony Orchestra of New York with Lukas Foss (piano) under the Composer. Columbia LP 4325. \$4.85. The composer calls this work "the record of our difficult and problematical search for faith." There's much symphonic heave and ho and some jazz idiom, but how much is worth repeated hearing? Magnificently performed and recorded.

Fidelity of Recording AA

Fidelity of Recording AA

Borodin: String Quartet No. 1. Vienna Konrerthaus Quartet. Westminster LP 50-35. \$5.95. Seldom heard Borodin masterpiece played with sweep and imagination. Recording, far Interpretation AA Fidelity of Recording AA

Elgar: Concerto for Violin and Orchestra in B Minor. Heifetz with the London Symphony Orchestra under Sargent. RCA Victor LP 1990. \$5.45. Some critics regard this rarely played work as the last of the great violin concertos. Though I think that is stretching a point, it is a mellow, mature, romantic concerto that wears well. You are not likely to hear it played more suavely and masterfully. The British recording of the solo violin is a trifle strident requiring attenuation of high frequencies but with that adjustment the sound is richer.

Interpretation AA Fidelity of Recording A

Grieg: Piano Concerto. Schioler with the Danish State Radio Symphony Orchestra under Tuxen. Mercury LP 15012. \$3.55. Melodious, standard concerto played with greater warmth and musicianship than commonly heard. Recorded as from some distance over average. Highs cut off rather soon, but over-all impression generally pleasing.

Interpretation AA
Fidelity of Recording A

Haydn: Four Notturni. Vienna Chamber Orchestra under Litschauer. Haydn Society LP 1023. \$5.95. Haydn wrote at least seven Notturni of which Nos. 1, 2, 4, and 7 are performed here. They are charming works for small orchestra. Played with a warm glow and direct emotional appeal. Clearly reproduced though surfaces crackle now and then.

Interpretation AA Fidelity of Recording AA

Mozart: Requiem Mass. Vienna Hofmusikkapelle under Krips. 4 sides, London Records 230 and 231. \$9.90. Particularly subdued, sensitive performance of an immortal work. Unusual is the singing by Masters Pech and Breitschopf of the soprano and alto quartet parts, generally sung by ladies. Clear, rich recording. Overall, the performance certainly challenges, though from a different interpretive point of view, the dramatic, remarkable De Sabata — Cetra-Soria set.

Interpretation AA Fidelity of Recording AA

Paganini: Caprices — Nos. 1 through 12. Ruggiero Ricci (unaccompanied violin). London LP 264. \$5.95. These caprices from the set of 24 present a challenge met by few concert artists. Ricci, fortunately, plays them with dazzling virtuosity in their original form. Most of the time the microphone stands close to the violin, yet there is sufficient room

resonance to make the tone pleasing and realistic. One of the most thrilling violin records in months. The remaining 12 caprices have been recorded, also, but not yet released.

Interpretation AA Fidelity of Recording AA

Schubert: Fontasia — Op. 15, C Major ("Wanderer") & Four Impromptus. Orazio Frugoni (piano). Vox LP 6690. \$5.95. More of a display piece than most Schubert piano compositions, the "Wanderer" is, nevertheless, first rate music. Frugoni's playing is forceful and well controlled but doesn't really get far enough beneath the surface. Pitch wavers, Piano sounds much as it does from a seat in a concert hall, with more bass and depth and perhaps fewer clanging highs than the run-of-the-mill piano recordings. Interpretation A Fidelity of Recording B

Strauss: Also Speach Zarathustra. Vienna Philharmonic Orchestra under Krauss. London LP 232. \$5.95. Pretentious, bombastic work seldom played as effectively as here. Exceptional recording qualifies it as a test record.

Interpretation AA
Fidelity of Recording AA

Strauss: Elektra. Konetzni, Mödl, Ilitsch, Braun, etc., under Mitropoulos. 4 sides, Cetra-Soria LP Set 1209. \$11.90. Loud, passionate, tragic one act masterpiece in which vocal declamation shares bonors with the orchestra. Obviously Mitropoulos has a strong feeling for the work. Under ideal studio recording conditions, with a cast that fully measured up to the difficult job, an extraordinary set might be produced. Of the principals in this set Mödl as Klytemnestra is best, Konetzni as Elektra is second. The men and Ilitsch are less persuasive. The recording was made at an actual performance in Florence. The orchestra is satisfactorily prominent though sometimes it overshadows the singers. The range is wide and the exciting atmosphere of the theater is maintained. But on the whole, the set does not measure up to the superb Final Scene as presented by Beecham-Victor.

Fidelity of Recording A

My Favorites. Gladys Swarthout (mezzo-soprano). 8 sides, RCA Victor Set WDM 1440. \$4.30. "One Night of Love," "Estrellita." "Oh Promise Me," and others in a similar vein sung lusciously. Overblown orchestral effects.

Interpretation AA Fidelity of Recording AA

Songs From Sunny Italy. Richard Tucker (tenor). Columbia LP 2155. \$3.85. Tucker is no Italian but he will deceive many listeners. He sings with gusto and sounds a little off pitch once in a while. Yet he will enliven your evening. Good recording. "Lolita," "La Danza," "O Sole Mio," etc.

Interpretation A Fidelity of Recording AA

Helen Traubel Sings Beloved Religious Songs. 6 sides, RCA Victor Set WDM 1453. \$3.35. "Lost Chord," "Lord's Prayer," "The Palms," etc., sung with strength and reverence, The orchestra gets over-fancy here and there but on the whole the performance is durable.

Interpretation AA Fidelity of Recording AA

Old Vienna. Helen Traubel (soprano). RCA Victor LM-39, \$3.85. I listened to this LP with pleasure for there is a lilt to the music and appropriate smoothness and softness in Miss Traubel's singing. "Yours Is My Heart Alone." "Vienna, City of My Dreams," etc. Excellent recording.

Interpretation AA
Fidelity of Recording AA

